

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

Power supply circuit	230 Vac (-15...+10%) For other values, see the coding table
Consumption	6 V·A
Frequency	45..0.65 Hz
Metering circuit	
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_n
Class/Accuracy	
Voltage	0.5 % ± 2 digits
Current	0.5 % ± 2 digits
Power rating	1 % ± 2 digits
Ambient conditions	
Operating temperature	-10 ... +50 °C
Relative humidity (non-condensing)	5 ... 95%
Build features	
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
Safety	
Designed for CAT III 300/520 Vac installations, in accordance with EN 61010 Double-insulated electric shock protection, class II	
Standards	
IEC 664, VDE 0110, UL 94, IEC 801, IEC 348, IEC 571-1, EN 61000-6-3, EN 61000-6-1, EN 61010-1	

CVM BD

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



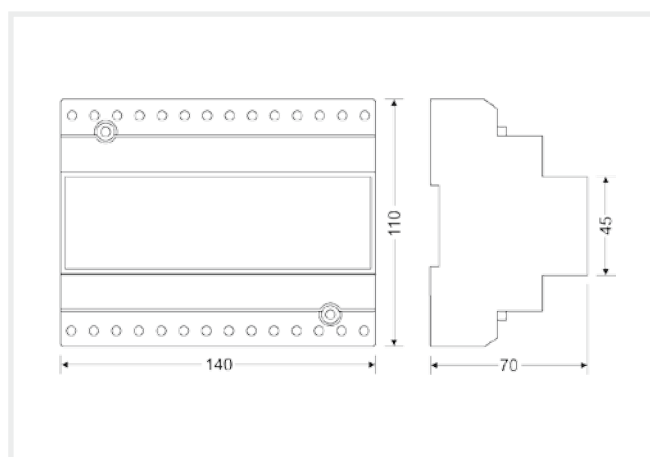
References

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

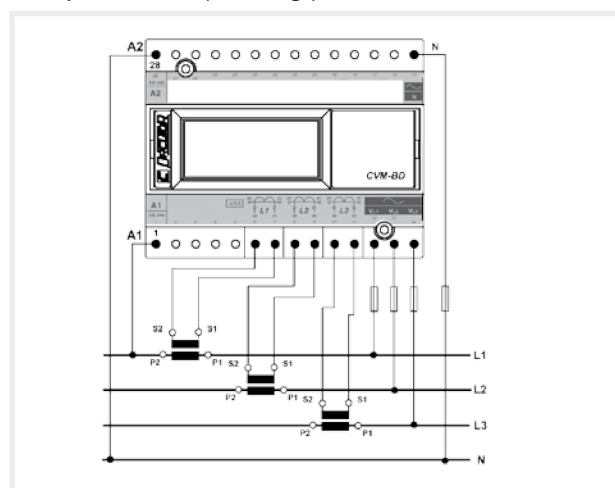
M	5	X	X	X	X	0	0	X	X	X	X	X
Code					Internal Code							
Power Supply Voltage (PSV)	Standard (230 Vac)				0							
	110 Vac				1							
	24...0.120 Vdc				5							
Voltage metered (VM)	Standard (300 V _{ph-n} /520 V _{ph-ph})				0							
	110 V _{ph-n} / 190 V _{ph-ph}				1							
	500 V _{ph-n} / 866 V _{ph-ph}				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

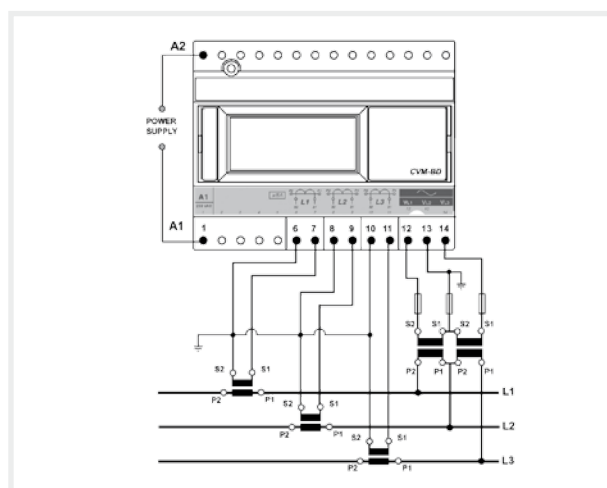


Connections

Three-phase network (low voltage)



3 current transformers + 2 voltage transformers



See the user manual for other types of connections

CVM BDM

Three-phase power analyzer(balanced and unbalanced) for DIN rail mounting, with internal 1 MB memory



Description

Three-phase power analyzer(balanced and unbalanced) for its assembly on DIN rails, with internal 1 MB memory, measuring in 4 quadrants.

Other features include:

- Current measuring .../5 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
- Calculates the flicker per phase
- RS-485 communications with Modbus RTU and Zmodem protocol to download files
- Optional second RS-485 port to connect I/O peripherals
- ITF Technology: galvanic insulation protection inputs, depending on the type
- Default page selection
- Optional use of rates with RED or RED-MAX modules

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
- Applications where the analyzer's memory must store the electrical parameters measured.

Features

Power supply circuit		230 Vac (-15...+10%). For other values, see the coding table
Consumption		6 V·A
Frequency		45..0.65 Hz
Metering circuit		
Nominal voltage		500 Vac (ph-n) / 866 Vac (ph-ph)
Frequency		40..65 Hz
Current consumption of the circuit		0.6 V·A
Nominal current		... / 5 A
Overload (permanent)		1.2 I _n
Class/Accuracy		
Voltage		0.5 % ± 2 digits
Current		0.5 % ± 2 digits
Power rating		1 % ± 2 digits
Internal memory		1 MB
Ambient conditions		
Operating temperature		-10 ... +50 °C
Relative humidity (non-condensing)		5 ... 95%
Build features		
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
Safety		
		Designed for CAT III 300/520 Vac installations, in accordance with EN 61010 . Double-insulated electric shock protection, class II
Standards		
		IEC 664, VDE 0110, UL 94, IEC 801, IEC 348, IEC 571-1, EN 61000-6-3, EN 61000-6-1, EN 61010-1

CVM BDM

Three-phase power analyzer (balanced and unbalanced) for its assembly on DIN rails, with internal 1 MB memory



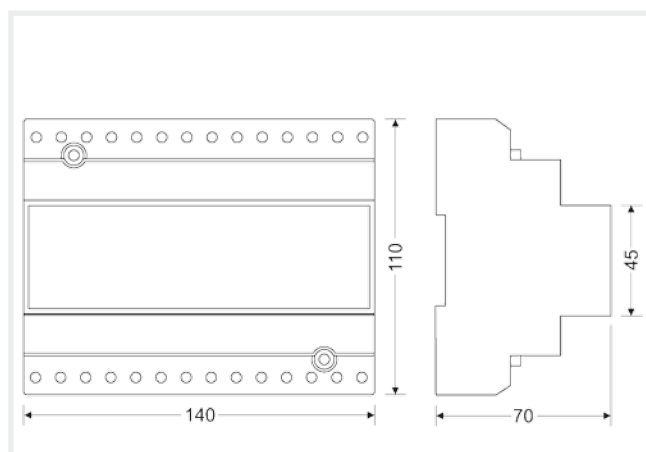
References

Quadrants	Class (V,A)	Clock	THD/D (V/A)	Maximum demand	Flicker meter	Harmonics meter	MODBUS / RTU Communications	Internal memory	Relay output	Output 4...20 mA	Type	Code
4	0,5	Yes	Yes	Yes	Yes	Yes	RS-485	1 MB	-	-	CVM-BDM	M52210
4	0,5	Yes	Yes	Yes	Yes	Yes	RS-485	1 MB	2	-	CVM-BDM-C2	M52211
4	0,5	Yes	Yes	Yes	Yes	Yes	-	1 MB	1	1	CVM-BDM-C420	M52212
4	0,5	Yes	Yes	Yes	Yes	Yes	RS-485	1 MB	-	2	CVM-BDM-420	M52213

Coding table

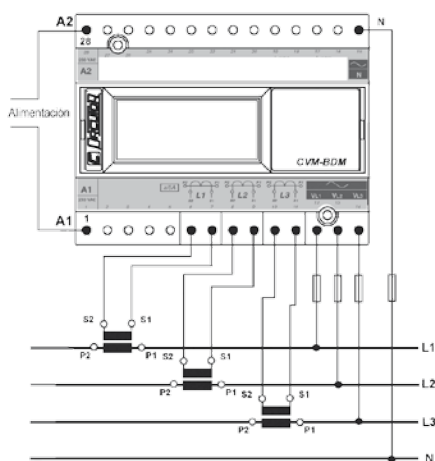
M	5	X	X	X	X	0	0	X	X	X	X	X
Code						Internal Code						
Power Supply Voltage (PSV)	Standard (230 V ac)					0						
	110 V ac					1						
	24..0.120 V dc					5						
Voltage measurement (VM)	Standard (300 V _{ph-n} / 520 V _{ph-ph})					0						
	110 V _{ph-n} / 190 V _{ph-ph}					1						
	500 V _{ph-n} / 866 V _{ph-ph}					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

