

# CVM NRG 96

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



## Description

Three-phase power analyzer (balanced and unbalanced) for its assembly on panels with a minimum depth, measuring in 4 quadrants.

- Other features include: Class 1 energy
- Current measure .../5
- RS-485 Modbus/RTU Communications, depending on the type
- Instantaneous, maximum and minimum parameter display
- Digital output with optoisolated transistor
- ITF Technology: Galvanic insulation protection inputs inputs, depending on the type
- Maximeter function (A / A III / kW III / kV·A III)
- Default page selection
- Universal power AC and DC optional

## Features

Power supply circuit	dc Version	Plus Version: ac and dc
24 Vdc (-15...+10%)	85...265 Vac / 95...300 Vdc	
AC Power supply frequency	-	50...60 Hz (ac type)
Maximum consumption (equipment with communications)	2.2 W	2 V·A
DC Power supply consumption (equipment w/o communications)	1.8 W	2 V·A
Metering circuit		
Nominal voltage	300 Vac (ph-n) / 520 Vac (ph-ph)	
Frequency	45..0.65 Hz	
Nominal current	$I_n \dots / 5 \text{ A}$	
Current consumption of the circuit	0.75 V·A	
Overload (permanent)	$1.1 I_n$	
Class/Accuracy		
Voltage	$0.5 \% \pm 2 \text{ digits}$	
Current	$0.5 \% \pm 2 \text{ digits}$	
Power rating	$1 \% \pm 2 \text{ digits}$	
Active energy	Class 1 - EN 62053-21 (*)	
Reactive energy	Class 2 - EN 62053-23 (*)	
Ambient conditions		
Operating temperature	-10 ... +50 °C	
Relative humidity	5 ... 95%	
Output transistor		
Maximum switching voltage	24 Vdc	
Maximum switching current	50 mA	
Maximum impulse frequency	5 impulse / s	
Duration of the impulse	100 ms	
Build features		
Type of box	VO self-extinguishing plastic	
Degree of protection	Fitted unit (frontal): IP 51	
Dimensions	Non-fitted unit (sides and rear cover): IP 31 96 x 96 x 63 mm	
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		
(*) in device measurement range		

## Application

- Applied to the control of switchboards and low and medium voltage connection points.
- Alarm control, with full programming of the variable controlled, maximum and minimum values and the delay
- Control of active or reactive energy with pulses
- Control of instantaneous, maximum and minimum values of the electrical parameters metered

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### References

Quadrants	Class (V, A)	Communications	Digital output	Universal power supply	Harmonics	Type	Code
4	0,5	-	-	Yes	-	CVM-NRG 96	M51800
4	0,5	-	-	Yes	-	CVM-NRG 96-ITF	M51900
4	0,5	RS-485	1	Yes	-	CVM-NRG 96-ITF, RS-485 C	M51911
4	0,5	RS-485	1	Yes	U and I (15°)	CVM-NRG 96-ITF-HAR, RS-485 C	M51B11
4	0,5	LonWorks	1	Yes	-	CVM-NRG 96-ITF-LonWorks-C	M51951
4	0,5	BACnet	1	Yes	-	CVM-NRG 96-ITFBACnet-C	M51981

### CVM NRG96-MC, Sistemas de medida Eficiente

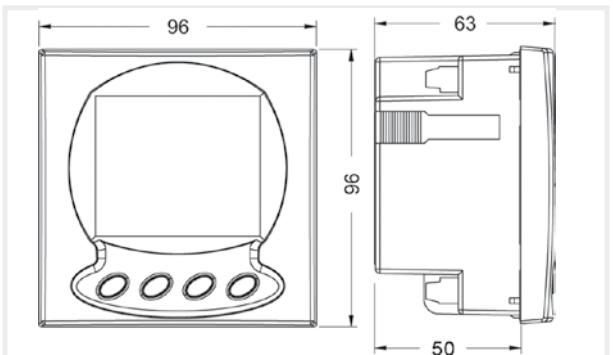
4	0,5	-	-	Yes	-	CVM NRG96-MC-ITF	M51J00
4	0,5	RS-485	1	Yes	-	CVM NRG96-MC-ITF-RS-485-C	M51J11

### 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 Phases	7,1 mm	MC3-63	M73121
125	-	0,1 VA	3 Phases	14,6 mm	MC3-125	M73122
250	-	0,25 VA	1 Phase	26 mm	MC3-250	M73123
250	150/200/250	0,25 VA	1 Phase	20 mm	MC1-20-150/200/250	M73113
500	250/400/500	0,25 VA	1 Phase	30 mm	MC1-30-250/400/500	M73114
150	500/100/150	0,25 VA	1 Phase	35 mm	MC1-35-50/100/150	M73116
1500	500/1000/1500	0,25 VA	1 Phase	55 mm	MC1-55-500/1000/1500	M73115
2000	1000/1500/2000	0,25 VA	1 Phase	80 mm	MC1-80-1000/1500/2000	M73117

\* Mas información sobre transformadores eficientes consulte M7

### Dimensions

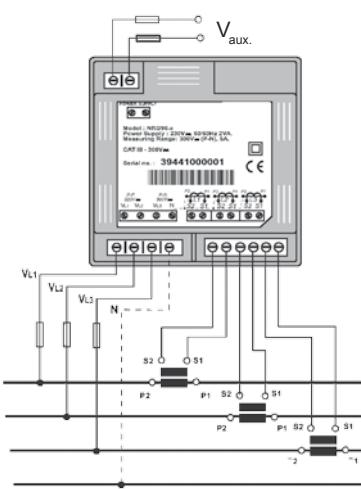


### Coding table

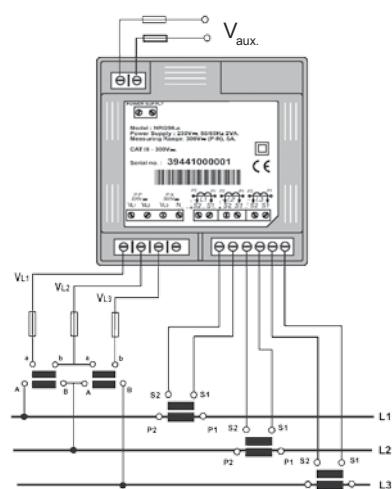
M	5	X	X	X	0	0	X
Code	Internal Code ↑						
Power Supply Voltage (PSV)	Standard (230 Vac) 0						
85...265 Vac	A						
95...300 Vdc							
24...0.120 Vdc	5						

### Connections

#### CVM NRG96, 3 or 4 wires (low voltage)



#### CVM NRG96, 3 wires (2 Voltage transformers and 3 Current transformers)



#### CVM NRG96, 3 wires (2 Voltage transformers and 2 Current transformers)

