



CVM96 Power Quality Analyzer

To satisfy our customers' needs, NMI offers the CVM96 power meter, which measures, calculates, and displays main electrical parameters (37 discrete values) from any industrial three-phase, or single phase power system, either 2, 3 or 4 wire configurations.

Measurements:

Three Phase Values:

Active Energy (kWh)
Inductive Reactive Energy (kVarhL)
Capacitive Reactive Energy (kVarhC)
Apparent Power (kVA)
Active Power (kW)
Power Factor (PF)
THD Measuring (V, A)
Harmonic decomposition up to the 31st

Inductive Reactive Power (kVarL)
Capacitive Reactive Power (kVarC)

Values Per Phase:

Voltage
Current
Reactive Power (+) and (-)
THD (V and A)
Power Factor

Neutral:

Calculated Neutral Current
Leakage Current*
Measured Neutral Current*
(*Only with the appropriate expansion module)

Outputs:

Digital IN and OUT
Analog IN and OUT
Alarming

Compliance:

Accuracy: ANSI C12.16
FCC: Class A Part 15

Features:

Energy Displayed kWh, kVarLh, kVarCh
Field Programmable
Three – Four Digit – LED Displays
Measuring Range: 120–480 VAC
Data Communications and Relays
LEDs Indicate Displayed Values
Minimum and Maximum Values for Each Parameter
Power and Harmonic Values Displayed
Neutral Current Measurements (Optional)

Communication Options:

Modbus / Johnson Controls N2 / TCP IP



Technical Characteristics:

Power supply circuit (*) 120 - 480 VAC (+10% / -15%)
Consumption 5 VA (*) Model Specific
Frequency 45...65 Hz

Measuring circuit:

Rated voltage 500 VAC phase-neutral /
866 VAC phase-phase
Frequency 45...65 Hz
Voltage circuit consumption 0.75 VA
Rated current I_n .../5 A (option: .../1 A)
Permanent overload 1.2 I_n

Class:

Voltage
Current
Power
0.5 % \pm 2 digits
0.5 % \pm 2 digits
1 % \pm 2 digits

Digital Output transistor:

Maximum operating power 750 VA
Maximum operating voltage 250 VAC
Maximum operating current 3 A
Mechanical life 3×10^7 operations
Energy / alarm impulses 1 impulse/second maximum
At full loading:

- electrical life (250 VAC / 3A)
- operating frequency
 1×10^5 operations
450 operations / hour

Analog outputs:

Output type 0 / 4 ... 20 mA
Resolution 4 000 dots (12 bits)
Maximum impedance 500 Ω

Analog inputs:

Input type 0 ... 20 mA
Resolution 4 000 dots (12 bits)

CVM96 Models

Three-phase 45...65 Hz	Insulated inputs (ITF)	Energy	THD Measuring (V, A)	Harmonics measurer up to 31st (A)	True effective value	LED Display	Relay output	Neutral current	Communications	Protocol	Type	Code
•		•	•		•	•					CVM 96	M51100
•	•	•	•		•	•					CVM 96-ITF	M51200
•	•	•	•		•	•	2		RS-485	Modbus/RTU	CVM 96-ITF-RS485-C2	M51211
•	•	•	•		•	•	2		Ethernet	Modbus/TCP	CVM 96-ITF-Ethernet-C2-TCP	M51241
•	•	•	•		•	•	2		RS-485	Johnson Controls	CVM 96-ITF-Johnson-C2	M51711
•	•	•	•	•	•	•	2	•	RS-485	Modbus/RTU	CVM 96-F-ITF-RS485-C2-HAR-IN	M51513

Dimensions

