

National Meter Power & Energy Meters

Four Quadrant Kilowatt Hour Meter

- Fits Single or Three Phase, 2, 3 or 4 Wire System
- 3 Line Backlit LCD Display
- Field Programmable
- Pulse Output
- Digital Output
- Panel Mounting

CEP96


SPECIFICATIONS

Max Reading:	999,999.999 kWh
Accuracy:	1% of readout + 2 digits (ANSI C12.16)
Measuring Range:	120/208/240 VAC, 5-10000 A (depending on connected CT)
Frequency:	45-65 Hz
Current Input:	5 A (isolated CT), burden 0.75VA
Minimum Measurement:	0.05 A
Current Overload:	1.1x continuous
Power Supply:	208/230 VAC single phase -15%/+10%, 50/60 Hz
Operating Temperature:	-10°C to 50°C
Energy Output:	100 ms pulse, 100 pulses/kWh open collector NPN, optically isolated 24VDC, 50mA max
Enclosure:	UL V0 rated plastic, IP54 front
Dimensions:	3.78"W x 3.78" H x 2.5" D (96x96x63 mm)

Three Phase Power & Energy Analyzers


7000 V3

- Scrolling LCD Display
- Autoranging 3 or 4 Wire
- MIN/MAX Readings to 9 Digits
- 2 Energy/Alarm Relays
- RS-485 Modbus RTU Output
- Use with CTs Rated to 10,000A

Measures V (\emptyset - \emptyset , \emptyset -N), A (\emptyset - \emptyset , \emptyset -N), kW (\emptyset -N & avg), kVAR (\emptyset -N & avg), demand (1-60 min), PF (\emptyset -N & avg), freq, THD% (V & A), total kWhr, total kVARh.L

SPECIFICATIONS

Accuracy:	Power: 0.5%; Energy: 0.2% (ANSI C12.16)
Current Input:	5A from CT, burden 0.75VA (110mV optional) *
Voltage Input:	\pm 20%, burden 0.5VA
Frequency:	55-65 Hz
Operating Temperature:	-20°C to 70°C, <95% RH non-condensing
Relay Outputs:	240VAC/48VDC, 2500VA resistive
Communications:	RS-485 2 wire Modbus RTU
Enclosure:	Surface mount, ABS plastic, NEMA 1
Connections:	Removeable terminal blocks
Dimensions:	7.5" W x 8.0" H x 3.5" D
Standards:	UL3111-1, CUL, IEC, CE

* 400A solid core CTs included with 4000 & 7000 series. Split core and larger sizes available.

Three Phase Energy & Demand Meters

- Six Digit kWh LCD Display
- L1, L2 & L3 Power Readings
- Three Digit V, A & kW Readout
- kWh Pulse Relay
- RS-485 Modbus RTU Output
- Incorrect Wiring Indicator
- Use with CTs Rated to 10,000A


KW4000

Displays kWhrs and kW Demand along with Volts, Amps and real time kW per phase.

Green Meter option displays CO₂ (lbs) and Total Cost (\$) of kWh consumed.

SPECIFICATIONS

Accuracy:	Power: 0.5%; Energy: 0.2% (ANSI C12.16)
Current Input:	Isolated 5A CT circuit, burden 0.6VA *
Operating Temperature:	-10°F to 120°F, <95% RH non-condensing
Pulse Relay Output:	SPST Form A, 120VAC@0.5A resistive
Communications:	RS485 2 wire Modbus protocol
Dimensions:	7.5"W x 8" H x 3.5" D
Enclosure:	Surface mount, ABS plastic, NEMA 1
Connections:	Screw terminals
Standards:	UL/CUL/CSA listed

Three Phase Power & Energy Analyzers


CVM96

- Three 4-Digit LED Displays
- 37 Parameters Measured
- MIN/MAX Readings
- Energy/Alarm Relays Optional
- RS-485 or Ethernet Optional
- DIN Panel Mounting

Measures voltage, current, power, energy, demand, PF & THD in 3 or 4 wire systems

SPECIFICATIONS

Power Measurements:	kW, kVAR (inductive & capacitive), 4 quadrant
Energy Measurements:	kWh, kVARh.L, kVARh.C
Current Input:	5A from CT (order separately)
Frequency:	45-65 Hz
Accuracy (\pm 2 digits):	V & A: 0.5%; Power: 1.0%
THD:	V & A, total & per phase, to 31st harmonic
Power Supply:	120-240 or 120-480 VAC -15%/+10%, 5 VA
Analog Output:	0-20 or 4-20mA, 12 bits, 500 Ω max
Dimensions:	3.78"W x 3.78" H x 3.3" D (96x96x84 mm)

ORDERING INFORMATION

NM/CEP96	4 Quadrant kWh Meter, DIN panel mount
NM/CVM96-ITF-240	120/208/240V 3 \emptyset , 3 or 4 Wire, Power & Energy Analyzer
NM/CVM96-ITF-480	277/480V 3 \emptyset , 3 or 4 Wire, Power & Energy Analyzer
NM/KW4240*	120/208/240V 3 \emptyset , 3 or 4 Wire, kWh/Demand Meter
NM/KW4480*	277/480V 3 \emptyset , 3 or 4 Wire, kWh/Demand Meter
NM/K4240*	120/208/240V 3 \emptyset , 3 or 4 Wire, kWh Meter
NM/K4480*	277/480V 3 \emptyset , 3 or 4 Wire, kWh Meter
NM/K7V3240*	120/208/240V 3 \emptyset , 3 or 4 Wire, Power & Energy Analyzer
NM/K7V3480*	277/480V 3 \emptyset , 3 or 4 Wire, Power & Energy Analyzer

Single phase models also available.