

# NetMACS™ II

## Monitoring System



### Product Description

The NetMACS™ II is a flexible and cost effective solution to monitoring locations ranging from confined areas such as cabinets, to large and diverse environments such as central offices. The NetMACS™ II can be programmed to perform local control and evaluations such as threshold based alarming and trending. It can also be used to perform complex algorithm-based decision-making. Data can be accessed graphically via a standard web browser over a network. Using this web interface, commands and changes to setpoints can be input through pushbuttons and slide bars.

- **24 - 768 Inputs**  
Automatic range selection monitors inputs from 60VDC to battery float current levels via a 50mV shunt
- **Isolated Outputs**  
Four isolated relay drivers and two isolated analog outputs
- **Better than .1% Accuracy of (24 Bit) Data**
- **1U Rack Height**  
19" or 23" rack or wall mountable
- **Modem / Network Compatible**
- **Web Based**  
Communications capability including e-mail alert messaging
- **TL1-X.25, NMA compatible**
- **SNMP, Network Management**

### Electrical

Universal Inputs	0 - 60VDC, 0 - 50mV, 4 - 20mA
Analog Outputs	0 - 60VDC, maximum current 100mA

### Environmental

Storage Ambient	-40°F to +185°F (-40°C to +85°C)
Sea Level to 4,800 ft.	32°F to 122°F (0° to 50°C)
4,800 ft. to 7,000 ft.	32°F to 113°F (0° to 45°C)
7,000 ft. to 10,000 ft.	32°F to 104°F (0° to 40°C)
Humidity	<95% non-condensing (maximum)

### Documentation

Product Manual	4380193PD
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### Monitoring, Alarming & Control:

The NetMACS™ II is capable of monitoring all plant voltages and signals. It can produce a status report for these voltages and signals in over specified intervals of the plant operation. This gives the user the capability to track a plants performance over a long period of time, during different periods of usage. A basic NetMACS™ II has 24 universal inputs, 4 isolated relay drivers and 2 isolated analog outputs. The inputs will automatically switch from a 60VDC range to a 50mV range (accuracy of .1%, with a resolution of 5 microvolts in the 50mV range). This basic functionality can be expanded by adding supplemental monitoring units, up to a total of 768 inputs. Additional modules may be located up to 300' from the basic unit.

### Controls:

The NetMACS™ II units, when parameters are established, can control the plants performance characteristics.

### Communications:

The NetMACS™ II has a wide array of communication capabilities. These include:

- Ethernet 10 base-T running TCP/IP
- HTTP Web enabled
- SNMP upgradeable
- PPP Dial up, Text based dial up, telnet

The NetMACS™ II can support a direct RS-232 or modem connection running PPP. The NetMACS™ II is a web page server allowing a convenient web browser interface.

### Programming:

The NetMACS™ II operating system allows the programmer to create functional control programs. These programs can be site specific and based upon the values of any or all Analog Inputs, Analog Outputs, Timers, Digital Input Registers, Functions and the status of any or all Digital Inputs, Digital Outputs, Date, Time of Day, etc. These programs can be started either automatically, manually with a switch, or remotely with a macro.

Programming can be preformed over the network or via a direct connection to the NETMACS™ II.

### Typical Programs:

#### Power Plant Controls

- Automatic Equalizing
- Battery Thermal Protection
- Load Shedding
- Time Scheduling
- Spare Rotation
- Run Time Logging
- Trend Logs
- Automatic Status Reporting
- Monthly Reports

#### Environmental Controls

- Fixed Time Duty Cycling
- Night Purge
- Lead/Lag Control
- Seasonal Change-over
- Duty Cycling
- Optimum Start/Stop
- Staging Control
- Security System Control
- AC Generator Test

### System Capabilities:

Item	Quantity
Universal Inputs .....	768
Analog Outputs .....	2
Digital Outputs .....	4

### Part Number:

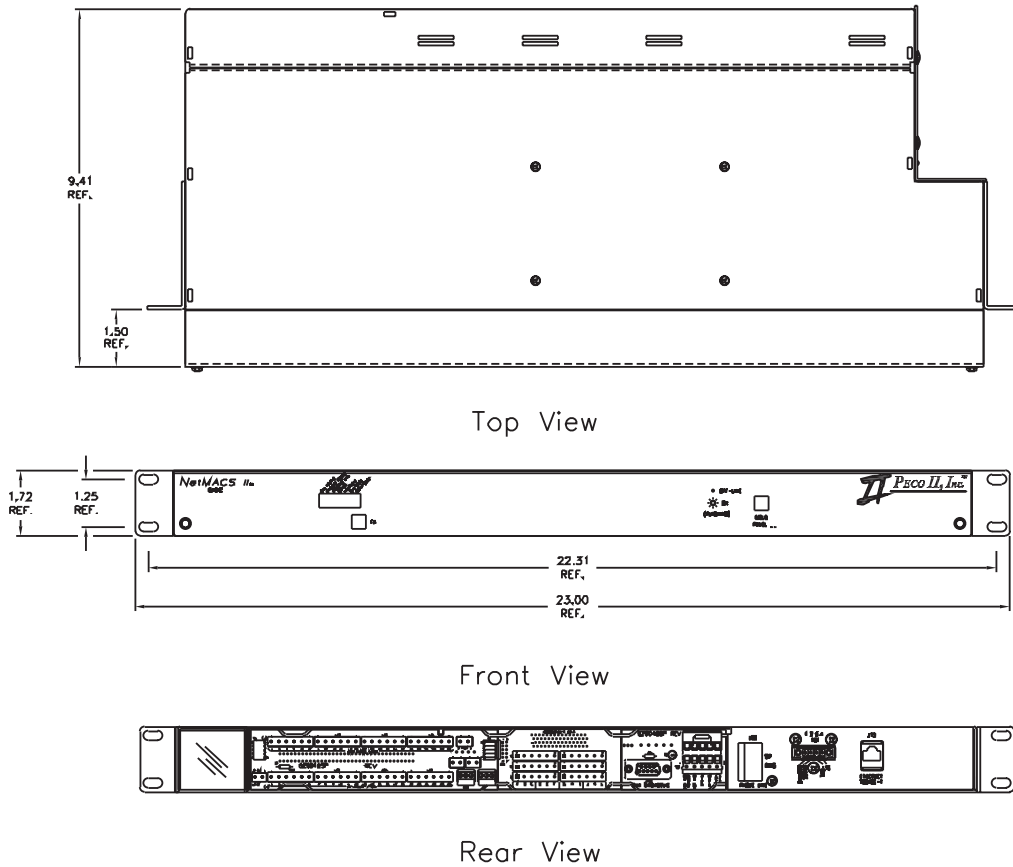
Description	PECO II Part Number
19" (482.6mm) NetMACS™ II - Basic .....	6310347P

## Options

Description	PECO II Part Number
19" (482.6mm) NetMACS™ II Supplemental equipped with 24 Channels .....	6310350P
PicoMACS II PWB add for additional 24 inputs .....	6200442P2-1
Modem kit (56K).....	6420550P-1
COMM Bridge TL1-X25 .....	6310377P
TL1 Bridge, Telnet Interface.....	6310333P
<b>Transducers</b> Several transducers are available, depending on the type, amplitude, and parameters to be measured. Contact factory for part numbering.	
<b>DB25 to DB9 NULL cable</b> A DB25 to DB9 NULL adapter must be utilized to connect to the NetMACS™ II locally. Contact factory for part numbering.	

## Line Drawing

Typical 23" NetMACS™ II



### Certifications:

