



Advanced Test Equipment Corp.

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STACO ENERGY[®] PRODUCTS CO.

MP CONTROLLERS

MICROPROCESSOR BASED VARIABLE TRANSFORMER CONTROLLERS

0.75 kW-27.0 | 120/208/240/277/480V

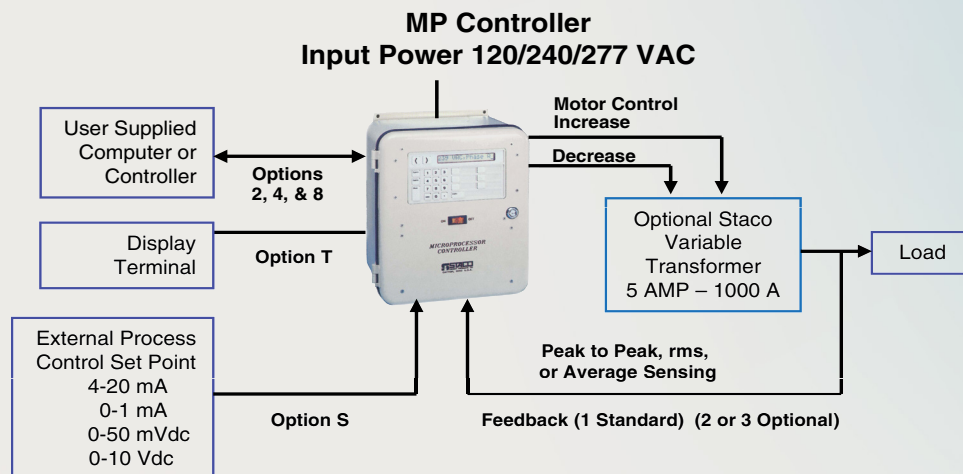
FOR THE PRECISE CONTROL OF

- Voltage Level
- Current Level
- Rate of Change
- Local or Remote Adjustable
Industrial Process Interface





The MP Series Microprocessor based controller provides for an easy interface of a computer or process controller to a Staco motor driven variable transformer. The basic MP controller provides for single channel feedback and control, and is supplied with an internally mounted set point potentiometer and a series of programmable DIP switches, all within a NEMA 12 style enclosure. The microcontroller is capable of operating in several different operational modes with selectable control ranges—high/low variable transformer motor speed, output voltage ramping, serial/analog set point selection and feedback voltage range. The controller offers unlimited interface flexibility through a series of standard options for “customization” to meet virtually any application or special requirement.



HOW IT OPERATES

The MP Controller accepts set point and feedback voltage inputs and provides output signals until the feedback voltage matches the predetermined set point. The input set point signal can accept standard analog signals (0-50mVdc, 0-10Vdc, 0-1mA, and 4-20mA) or digital interface (RS-232, IEEE-488 or RS-422). Multiple set points may be programmed for variable speed (time proportioning), ramping and variable dwell. The AC feedback signal may be configured to be compatible to your output voltage. The AC feedback signal can be user-programmed to accept peak to peak, average, or rms measurements as required for your specific application. In addition, the MP Controller provides output signals for feedback and/or your external monitoring or control.



OUTPUTS INCLUDE

- Three form "C" contact closures
- Eight 5 volt logic signals.

MP SERIES CONTROLLER ADVANTAGES

- Intelligent Microprocessor based.
- Controls variable voltage transformer regulation to within +/-0.5 volts.
- Multi-channeled unit enables control of one, two or three individual variable transformers or each phase of a three phase unit.
- LCD display of feedback signals and set points.
- Available with standard analog control signals (0-1 mA, 4-20 mA, 0-50 mVDC, 0-10VDC) for set point and control functions.
- Available with standard bi-directional RS-232, RS-422, IEEE-488 communication ports for set point and control functions.
- Multiple set points, ramping and dwells available.
- User programmable to accept peak-to-peak, rms, or average AC feedback signals
- Heavy duty wall mountable NEMA 12 style enclosure
- Control of the unit can be local, at a remote location, or both.
- Battery back-up RAM retins data if power is lost.
- Microterminal available for remote or stand-alone monitoring and control.
- Precise control of voltage ramping through the use of state of the art PWM technology.
- Expanded memory allows customization to specific application requirements.
- Precise control of voltage ramping through the use of state of the art PWM technology.

Available Options:

- Bi-directional RS-232, RS-422, IEEE-488 communication ports
- Single, double or triple channel feedback
- Process control set point (0-50mVDC, 0-10VDC, 0-1mA and 4-20mA)
- Optical isolation of control and feedback inputs for reduced noise interference
- Panel mounted microterminal for local control and monitoring
- Phase loss detection



Three Basic Models

Model Function

MPA	Single channel feedback and control
MPB	Two independent channels of feedback and control
MPC	Three independent channels of feedback and control

The MP Controller can be used as a stand-alone unit installed on the Variable Transformer's or Voltage Regulator's enclosure, or as a remote unit.



How to Specify and Order MP Controllers

Basic microprocessor units are full-range controllers in a NEMA 12 style enclosure with an internal mounted set point potentiometer plus a series of programmable DIP switches for motor speed, averaging, and dead-band adjustment.

Model:

Single Channel MPA
 Two Channel MPB
 Three Channel MPC

Options

Process Control Set Point
 Enclosure mounted MicroTerminal
 Microterminal only, for remote mounting
 Phase Loss Detection
 Optical isolated inputs (reduces noise interference)
 RS-232 Communications Port
 RS-422 Communications Port
 IEEE-488 Communications

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Technical Specifications

Operating Voltage: 120/240/277 VAC, 50/60 Hz

Input Signals:

Set Point:

- Internal potentiometer
- Remote analog input
- Digital input - remote and local

Congurable Voltage Feedback:

0-8 VAC, 0-150 VAC, 0-300 VAC,
 0-600 VAC, 0-10 VDC

Output Signals:

Three form "C" contact closures for increase/decrease, eight 5 volt logic signals

Options:

- Computer Interface: RS-232, RS-422, IEE-488
- Process Control Signals: 0-1 mA, 4-20 mA, 0-50 mVDC, 0-

Typical Examples

A single channel controller with an enclosure mounted terminal and an RS-232 port.

Specify MPA2T

A single channel controller in a NEMA 12 style enclosure.

Specify MPA

A single channel controller with an enclosure mounted terminal and process control set point.

Specify MPAST

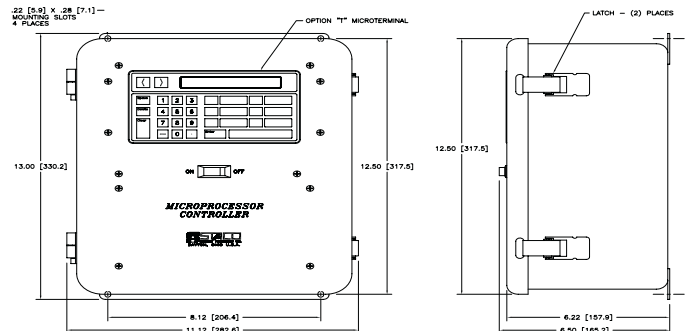
A three channel controller for control of 3 phase bank of variable transformers with three motors for individual phase control plus an RS-422 port.

Specify MPC4

General:

1500 VAC Isolation

- 5 year battery backed memory
- Watch dog timer
- Dimensions: 13H x 8.45W x 7.44D
- Net Wt: 18 lbs; Shipping Wt: 21 lbs.
- Operating temperature: 0-50C
- 4 mounting slots



STACO SERVICE

FIELD SERVICE PROGRAM

Staco specializes in providing choice and flexibility by developing tailored solutions for preventive and remedial maintenance services, as well as emergency repairs for all of our products. Staco Service is built upon a nationwide network of highly trained and motivated customer support engineers and technicians who can provide professional services and care throughout the life of your equipment.

- Start-Ups
- Preventive Maintenance
- Spare Parts
- Battery Analysis/Refresh/Replacement
- On-Site Training
- Time & Material Services

WHY STACO ENERGY PRODUCTS?

BECAUSE WE ARE YOUR TAILORED POWER SOLUTIONS PROVIDER!

Unique application design demands, harsh environment concerns, the need to meet non-standard physical space requirements; providing the "not so usual" is what we do best. From leading edge uninterruptible power supplies, power conditioners, power factor and harmonic correction equipment, to the world's most stable voltage control systems, we have the technology you need to protect and manage your business, and the knowledge to make it work for you.

Since 1937, customers worldwide have relied on Staco Energy as their tailored solutions provider, to solve a wide range of electrical power problems. Headquartered in Miamisburg, Ohio, Staco Energy Products is a wholly owned subsidiary of Components Corporation of America, located in Dallas, Texas.

Voltage Control



UPS & Emergency Lighting



Power Factor & Harmonics



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