

Popular  
Variable Transformers  
and AC Power Supplies

**STACO**  
**ENERGY**<sup>®</sup>  
**PRODUCTS CO.**

# Product Guide— AC Voltage Control Devices



Staco Energy Products Co. has been a leading manufacturer of variable transformers for over 65 years, building standard and custom-designed products for industrial, commercial and military applications. Variable transformers have many industrial and laboratory applications as basic components to control voltage, current, power, heat, speed, light and electromechanical force.

A basic Staco variable transformer consists of a single layer magnet wire winding on a toroidal core of laminated silicon steel. A carbon brush, connected to an output lead, is rotated over a precision ground, plated commutator track to tap off voltage at any turn from zero to the maximum output voltage of the winding.

Staco research has developed design features and proprietary processes to provide longer lasting, more reliable products. Particularly important is the high-temperature foundation material bonding the coil securely to the core assembly. This material has a high thermal transfer characteristic so that it dissipates heat from the brush contact area, increases the heat distribution of the core itself, and provides the transformer with greater tolerance to transients and short-term overloads.



Some Models Are  
Listed by the Canadian Standards Association  
File No. LR18948

In addition to the basic styles illustrated, Staco Energy can meet your specific requirements with hundreds of additional standard model variations and configurations from 0.8 to 450 amps, 120 to 575 volts, 50 Hz and up. 480 volt units are shown on page 8 and in our Variable Transformer Voltage Control Catalog (VT-5). These models include cased and uncased, single and three phase manual and motor driven models, and complete voltage control systems. Complete information is contained in our Variable Transformer Voltage Control Catalog.

To serve your needs promptly, Staco Energy has a national network of stocking distributors to assure immediate off-the-shelf delivery. Your local Staco distributors and representatives are factory trained, and capable of assisting you in selecting the particular Staco transformer best suited for your application.

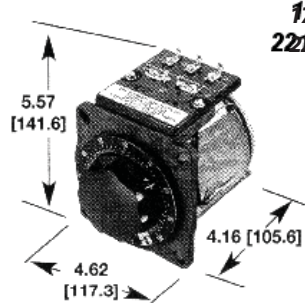
Contact our factory or visit the "Where to Buy" section of [www.StacoEnergy.com](http://www.StacoEnergy.com) for the name of the distributors or sales representative in your area.

For nonstandard products (to meet your special application needs) our engineering staff will quickly respond with custom solutions to your application requirements. Often a simple revision to a standard component is all that is required, allowing us to keep your costs at a minimum.

**Dimensions are provided throughout this catalog in inches [millimeters].**

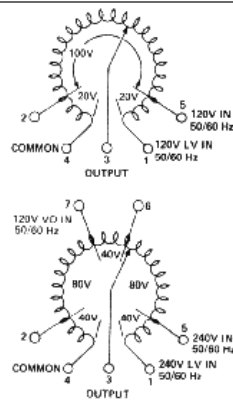
## Panel Mount, Single Phase — 120 and 240 Volt Adjustable Shaft

### 100 and 200 Series



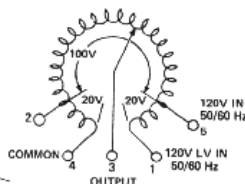
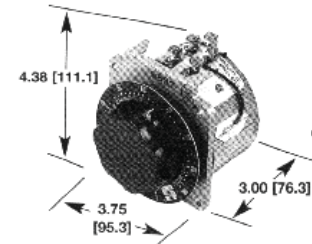
| Type       | A            |
|------------|--------------|
| 171, 201   | 1.88" (47.6) |
| 221-B, 252 | 2.12" (54.0) |
| 291        | 2.31" (58.7) |

171, 201,  
221-B, 291



| Part No. | Input |       | Output |                       |          |                         |          | Net Wt. Lbs. |
|----------|-------|-------|--------|-----------------------|----------|-------------------------|----------|--------------|
|          | Volts | Hertz | Volts  | Constant Current Load |          | Constant Impedance Load |          |              |
|          |       |       |        | Max. Amps.            | Max. kVA | Max. Amps.              | Max. kVA |              |
| 171      | 120   | 50/60 | 0-120  | 1.75                  | 0.21     | 2.2                     | 0.26     | 2            |
|          |       | 60    | 0-132  | 1.75                  | 0.23     | —                       | —        |              |
| 201      | 120   | 50/60 | 0-120  | 2.0                   | 0.24     | 2.5                     | 0.30     | 2            |
|          |       | 60    | 0-132  | 2.0                   | 0.26     | —                       | —        |              |
| 221-B    | 120   | 50/60 | 0-120  | 2.50                  | 0.30     | 3.2                     | 0.38     | 2.5          |
|          |       | 60    | 0-132  | 2.50                  | 0.30     | —                       | —        |              |
| 291      | 120   | 50/60 | 0-120  | 3.0                   | 0.36     | 3.5                     | 0.42     | 2.5          |
|          |       | 60    | 0-132  | 3.0                   | 0.40     | —                       | —        |              |
| 252      | 240   | 50/60 | 0-240  | 0.8                   | 0.19     | 1.0                     | 0.24     | 2.5          |
|          |       | 60    | 0-264  | 0.8                   | 0.21     | —                       | —        |              |

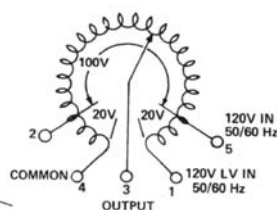
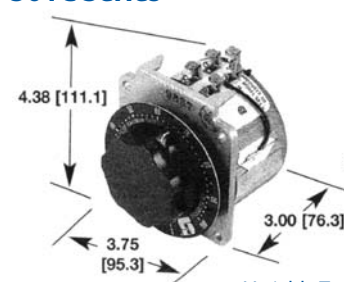
### 500 Series



| Part No. | Input |       | Output |                       |          |                         | Net Wt. Lbs. |          |
|----------|-------|-------|--------|-----------------------|----------|-------------------------|--------------|----------|
|          | Volts | Hertz | Volts  | Constant Current Load |          | Constant Impedance Load |              |          |
|          |       |       |        | Max. Amps.            | Max. kVA | Max. Amps.              |              | Max. kVA |
| 511      | 120   | 50/60 | 0-120  | 5.0                   | 0.60     | 7.0                     | 0.84         | 4.25     |
|          |       |       | 0-140  | 5.0                   | 0.70     | —                       | —            |          |

## Adjustable Shaft

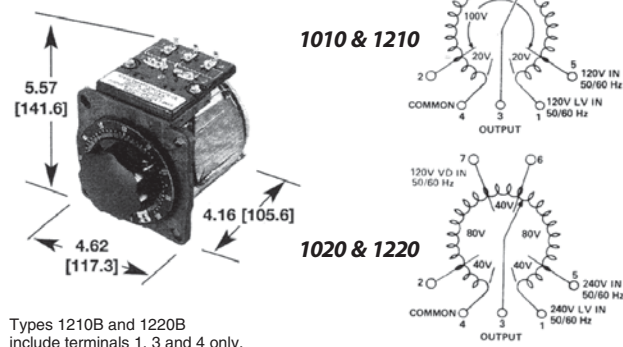
### 501C Series



| Part No. | Input |       | Output |                       |          |                         | Net Wt. Lbs. |          |
|----------|-------|-------|--------|-----------------------|----------|-------------------------|--------------|----------|
|          | Volts | Hertz | Volts  | Constant Current Load |          | Constant Impedance Load |              |          |
|          |       |       |        | Max. Amps.            | Max. kVA | Max. Amps.              |              | Max. kVA |
| 501C     | 120   | 50/60 | 0-120  | 5.0                   | 0.60     | 7.0                     | 0.84         | 5.25     |
|          |       |       | 0-140  | 5.0                   | 0.70     | —                       | —            |          |

## Adjustable Shaft

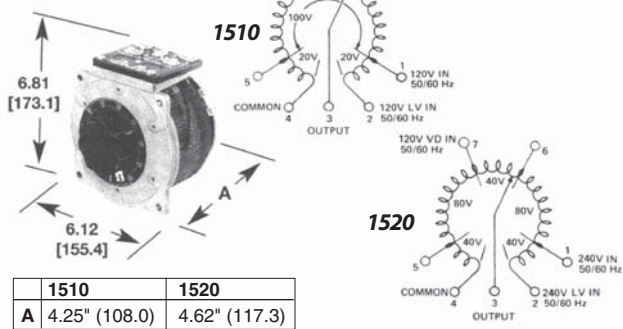
### 1000 and 2200 Series



Types 1210B and 1220B include terminals 1, 3 and 4 only.

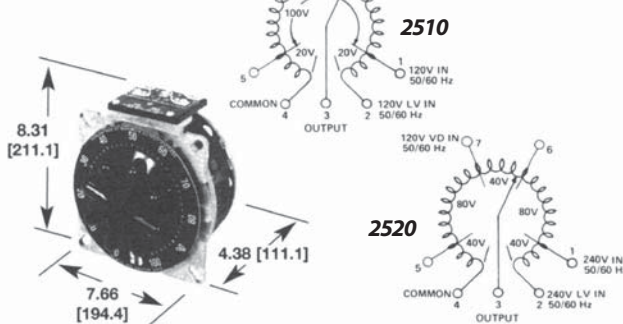
| Part No. | Input |       | Output         |                       |              |                         |           | Net Wt. Lbs. |
|----------|-------|-------|----------------|-----------------------|--------------|-------------------------|-----------|--------------|
|          | Volts | Hertz | Volts          | Constant Current Load |              | Constant Impedance Load |           |              |
|          |       |       |                | Max. Amps.            | Max. kVA     | Max. Amps.              | Max. kVA  |              |
| 1010B    | 120   | 50/60 | 0-120<br>0-140 | 10.0<br>10.0          | 1.20<br>1.40 | 13.0<br>—               | 1.56<br>— | 10.25        |
| 1210B    | 120   | 60    | 0-120          | 12.0                  | 1.44         | 15.0                    | 1.80      | 10.25        |
| 1020B    | 240   | 50/60 | 0-240          | 3.5                   | 0.84         | 5.0                     | 1.20      | 10.25        |
|          |       |       | 0-280          | 3.5                   | 0.98         | —                       | —         |              |
|          |       | 120   | 50/60          | 0-280                 | 3.5*         | 0.42*                   | —         | —            |
| 1220B    | 240   | 60    | 0-240          | 5.0                   | 1.20         | 7.0                     | 1.68      | 10.25        |

### 1500 Series



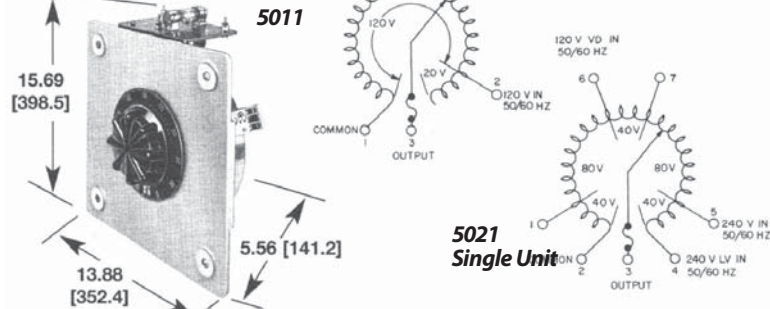
| Part No. | Input |       | Output |                       |          |                         | Net Wt. Lbs. |          |
|----------|-------|-------|--------|-----------------------|----------|-------------------------|--------------|----------|
|          | Volts | Hertz | Volts  | Constant Current Load |          | Constant Impedance Load |              |          |
|          |       |       |        | Max. Amps.            | Max. kVA | Max. Amps.              |              | Max. kVA |
| 1510     | 120   | 50/60 | 0-120  | 15.0                  | 1.80     | 20.0                    | 2.40         | 15.75    |
|          |       |       | 0-140  | 15.0                  | 2.10     | —                       | —            |          |
| 1520     | 240   | 50/60 | 0-240  | 9.5                   | 2.28     | 12.0                    | 2.88         | 19.25    |
|          |       |       | 0-280  | 9.5                   | 2.66     | —                       | —            |          |
|          | 120   | 50/60 | 0-280  | 9.5*                  | 1.14*    | —                       | —            |          |

### 2500 Series



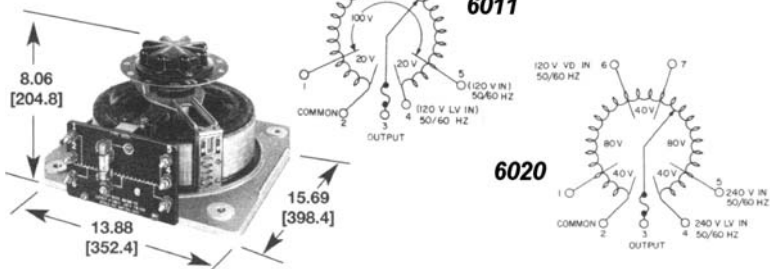
| Part No. | Input |       | Output |                       |          |                         |          | Net Wt. Lbs. |
|----------|-------|-------|--------|-----------------------|----------|-------------------------|----------|--------------|
|          | Volts | Hertz | Volts  | Constant Current Load |          | Constant Impedance Load |          |              |
|          |       |       |        | Max. Amps.            | Max. kVA | Max. Amps.              | Max. kVA |              |
| 2510     | 120   | 50/60 | 0-120  | 25.0                  | 3.00     | 30.0                    | 3.60     | 21           |
|          |       |       | 0-140  | 25.0                  | 3.50     | —                       | —        |              |
| 2520     | 240   | 50/60 | 0-240  | 10.0                  | 2.40     | 13.0                    | 3.12     | 21           |
|          |       |       | 0-280  | 10.0                  | 2.80     | —                       | —        |              |
|          | 120   | 50/60 | 0-280  | 10.0*                 | 1.20*    | —                       | —        |              |

### 5000 Series



| Part No. | Input |       | Output |                       |          | Net Wt. Lbs. |
|----------|-------|-------|--------|-----------------------|----------|--------------|
|          | Volts | Hertz | Volts  | Constant Current Load |          |              |
|          |       |       |        | Max. Amps.            | Max. kVA |              |
| 5011     | 120   | 50/60 | 0-140  | 50.0                  | 7.00     | 57           |
| 5021     | 240   | 50/60 | 0-240  | 28.0                  | 6.70     | 57           |
|          |       |       | 0-280  | 28.0                  | 7.80     |              |
|          | 120   | 50/60 | 0-280  | 28.0*                 | 3.40*    |              |

### 6000 Series



| Part No. | Input |       | Output |                       |          | Net Wt. Lbs. |
|----------|-------|-------|--------|-----------------------|----------|--------------|
|          | Volts | Hertz | Volts  | Constant Current Load |          |              |
|          |       |       |        | Max. Amps.            | Max. kVA |              |
| 6011     | 120   | 50/60 | 0-120  | 60.0                  | 7.20     | 67           |
|          |       |       | 0-140  | 60.0                  | 8.40     |              |
| 6020     | 240   | 50/60 | 0-240  | 35.0                  | 8.40     | 63           |
|          |       |       | 0-280  | 35.0                  | 9.80     |              |
|          | 120   | 50/60 | 0-280  | 35.0*                 | 4.20*    |              |
|          |       |       |        |                       |          |              |

\*Voltage Doubler operation, refer to Variable Transformer Voltage Control Catalog (VT-5).

Data is subject to change without notice.

Staco Energy Products Co.

## Enclosed Cord and Plug Series

The cased plug-in models feature a ventilated steel case, input line cord and plug, NEMA rated output receptacle, and an illuminated on/off switch. They are connected for output voltage increase with a clockwise rotation, and the dials are graduated from 0 - 100 percent of the voltage setting. For application flexibility, two field modification kits have been added to the product line. The 3PN-MK kit allows either the 3PN221B or 3PN501B to be wall, bench top, or machine mounted. The 3PN-SK kit provides an adjustable voltage stop for either the 3PN1000, 3PN1200, or 3PN1500 Series.

### Plug and Receptacle Styles



3PN 120 Volt Types



3PN 240 Volt Types



3PN-MK-Kit

| Part No. | Input |       | Output |                             |             |                               | Height | Width   | Depth   | Net<br>Wt.<br>Lbs. |             |
|----------|-------|-------|--------|-----------------------------|-------------|-------------------------------|--------|---------|---------|--------------------|-------------|
|          | Volts | Hertz | Volts  | Constant<br>Current<br>Load |             | Constant<br>Impedance<br>Load |        |         |         |                    |             |
|          |       |       |        | Max.<br>Amps.               | Max.<br>kVA | Max.<br>Amps.                 |        |         |         |                    | Max.<br>kVA |
| 3PN221B  | 120   | 60    | 0-132  | 2.50                        | 0.33        | —                             | —      | 5.31    | 6.06    | 4.10               | 3           |
| 3PN501B  |       | 50/60 | 0-140  | 5.0*                        | 0.70        | —                             | —      | [134.9] | [154.0] | [104.2]            | 7.75        |



3PN-SK-Kit

| Part No. | Input |       | Output |                       |          |                         | Height | Width           | Depth           | Net Wt. Lbs.    |          |
|----------|-------|-------|--------|-----------------------|----------|-------------------------|--------|-----------------|-----------------|-----------------|----------|
|          | Volts | Hertz | Volts  | Constant Current Load |          | Constant Impedance Load |        |                 |                 |                 |          |
|          |       |       |        | Max. Amps.            | Max. kVA | Max. Amps.              |        |                 |                 |                 | Max. kVA |
| 3PN1010B | 120   | 50/60 | 0-140  | 10.0                  | 1.40     | —                       | —      | 5.50<br>[139.7] | 4.62<br>[117.4] | 6.96<br>[176.8] | 10.25    |
| 3PN1210B | 120   | 60    | 0-120  | 12.0                  | 1.44     | 15.0                    | 1.80   | 5.50<br>[139.7] | 4.62<br>[117.4] | 6.96<br>[176.8] | 10.25    |
| 3PN1020B | 240   | 50/60 | 0-280  | 3.5                   | 0.98     | —                       | —      | 5.50<br>[139.7] | 4.62<br>[117.4] | 6.96<br>[176.8] | 10.25    |
| 3PN1220B | 240   | 60    | 0-240  | 5.0                   | 1.20     | 7.0                     | 1.68   | 5.50<br>[139.7] | 4.62<br>[117.4] | 6.96<br>[176.8] | 10.25    |



| Part No. | Input |       | Output |                       |          |                         |          | Height          | Width           | Depth           | Net Wt. Lbs. |
|----------|-------|-------|--------|-----------------------|----------|-------------------------|----------|-----------------|-----------------|-----------------|--------------|
|          | Volts | Hertz | Volts  | Constant Current Load |          | Constant Impedance Load |          |                 |                 |                 |              |
|          |       |       |        | Max. Amps.            | Max. kVA | Max. Amps.              | Max. kVA |                 |                 |                 |              |
| 3PN1510B | 120   | 50/60 | 0-140  | 15.0                  | 2.10     | —                       | —        | 6.00<br>[152.4] | 6.24<br>[158.4] | 9.35<br>[237.4] | 18           |
| 3PN1520B | 240   | 50/60 | 0-280  | 9.5                   | 2.66     | —                       | —        | 6.00<br>[152.4] | 6.24<br>[158.4] | 9.35<br>[237.4] | 22           |

## 2200 and 2500 Series



| Part No. | Input |       | Output |                          |             |                            | H x W x D<br>(cm) | Net Wt.<br>Lbs.                            |             |
|----------|-------|-------|--------|--------------------------|-------------|----------------------------|-------------------|--------------------------------------------|-------------|
|          | Volts | Hertz | Volts  | Constant<br>Current Load |             | Constant<br>Impedance Load |                   |                                            |             |
|          |       |       |        | Max.<br>Amps             | Max.<br>kVA | Max.<br>Amps               |                   |                                            | Max.<br>kVA |
| 3PN2210B | 120   | 50/60 | 0-140  | 22.0                     | 3.08        | —                          | —                 | 6.31 x 7.95 x 10.85<br>(160.3x202.1x275.6) | 24.25       |
| 3PN2520B | 240   | 50/60 | 0-280  | 10.0                     | 2.80        | —                          | —                 |                                            |             |

## Metered Models

Cased plug-in models of the 1010B, 1020B, 1510 and 1520 series are also available with a pivot and jewel AC voltmeter or ammeter (+/- 5% full scale accuracy) conveniently located atop the enclosure for easy accurate readout. It is ideal for applications where voltage control is

necessary. The 120 volt types have 0-150V voltmeters and the 240 volt types have 0-300V voltmeters. Units with voltmeters have the suffix "V" at the end of their part number. Units with ammeters have the suffix "A."



| Part No.  | Input |       | Output  |         | H x W x D<br>(cm)                         | Net Wt.<br>Lbs. |
|-----------|-------|-------|---------|---------|-------------------------------------------|-----------------|
|           | Volts | Hertz | Volts   | Current |                                           |                 |
| 3PN1010BV | 120   | 50/60 | 0 - 140 | 10.0    | 5.50 x 4.62 x 6.96<br>(139.7x117.4x176.8) | 10.25           |
| 3PN1010BA | 120   | 50/60 | 0 - 140 | 10.0    | 5.50 x 4.62 x 6.96<br>(139.7x117.4x176.8) | 10.25           |
| 3PN1510BV | 120   | 50/60 | 0 - 140 | 15.0    | 6.00 x 6.24 x 9.35<br>(152.4x158.4x237.4) | 18              |
| 3PN1510BA | 120   | 50/60 | 0 - 140 | 15.0    | 6.00 x 6.24 x 9.35<br>(152.4x158.4x237.4) | 22              |
| 3PN1020BV | 240   | 50/60 | 0 - 280 | 3.5     | 5.50 x 4.62 x 6.96<br>(139.7x117.4x176.8) | 10.25           |
| 3PN1020BA | 240   | 50/60 | 0 - 280 | 3.5     | 5.50 x 4.62 x 6.96<br>(139.7x117.4x176.8) | 10.25           |
| 3PN1520BV | 240   | 50/60 | 0 - 280 | 95      | 6.00 x 6.24 x 9.35<br>(152.4x158.4x237.4) | 22              |
| 3PN1520BA | 240   | 50/60 | 0 - 280 | 95      | 6.00 x 6.24 x 9.35<br>(152.4x158.4x237.4) | 22              |

## Isolated Portable Cord and Plug Models



| Part No. | Input |       | Output  |         | H x W x D<br>(cm)                         | Net Wt.<br>Lbs. |
|----------|-------|-------|---------|---------|-------------------------------------------|-----------------|
|          | Volts | Hertz | Volts   | Current |                                           |                 |
| 3PNJ201B | 120   | 50/60 | 0 - 140 | 20      | 5.50 x 4.62 x 6.96<br>(139.7x117.4x176.8) | 9               |
| 3PNJ401B | 120   | 50/60 | 0 - 140 | 40      | 6.00 x 6.24 x 9.35<br>(152.4x158.4x237.4) | 17              |

### Microprocessor Controller

#### Advantages:

- Intelligent Microprocessor Based
- Controls variable voltage transformer regulation to within  $\pm 0.5$  volts
- Multi-channelled unit enables control of 1, 2 or 3 individual variable transformers or each phase of a 3 phase unit
- LCD display of feedback signals and set points
- Available with standard analog control signals 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 are 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 retains 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.
- Field upgradeable -- options can be installed in the field as your needs change.
- Automatic shut-down or alarm with phase loss detection

#### The MP Controller comes in three basic models:

**MPA** - Single channel feedback and control

**MPB** - Two independent channels of feedback and control

**MPC** - Three independent channels of feedback and control

#### Available Options:

- Bi-directional RS-232, RS-422, IEEE-488 communication ports
- Single, double, or triiple channel feedback
- Process control set point
- Optical isolation of control and feedback inputs for reduced noise interference
- Panel mounted microterminal for local control and monitoring
- Phase loss detection

#### Typical Applications:

- Motor and compressor testing
- Circuit breaker testing
- Plating rectifier systems
- Quality control testing
- Engineering laboratories
- Industrial processes
- Voltage Regulation



*Microprocessor Controller  
with optional microterminal*

### FRC-20 Controller

#### Advantages:

- Regulated Output Voltage
- 0-5 VDC or 4-20 mA Set Point Control
- 1 kohm Potentiometer or Fixed Resistor Network Control
- Full or Limited Range Control
- Compact Size
- Easy to Mount
- Up to 600 VAC Feedback Voltage Operation
- Current Regulation



*FRC-20 Controller*

The FRC-20 Controller is a versatile, field modifyable controller that has a low install cost and low cost of operation. It is designed to position and regulate any Staco Energy motor driven variable transformer, and can be controlled with a 0-5 VDC or 4-20 Ma set point, a 1k ohm potentiometer, or a fixed resistor network. It maintains a full range regulation of 0.5% and a limited range regulation of 0.25%.

The FRC-20 is field configurable for feedback voltage ranges up to 600 volts, for either full range or limited range control. It is small and can be easily mounted on the motor base plate of the variable transformer or inside an enclosure. Current and other feedback alternatives are also available.

## Ganged Variable Transformer Assemblies

### High Current Models

By ganging the variable transformers with a common rotor shaft, and wiring the outputs in parallel, the output current can be greatly increased. The models listed on this page are capable of output currents up to 540 amps. Other models are available in a variety of ranges. Please refer to our Variable Transformer Voltage Control Catalog (VT-5) for additional information.

### Three Phase Models

All models of Staco variable transformers can be ganged with a common rotor shaft and wired for three phase operation in either open Delta or Wye configuration. The table below lists a few typical 240 and 480 volt models. Please refer to our Variable Transformer Voltage Control Catalog (VT-5) for additional models.



30M5011-3Y Model



### Single Phase Models

| Part No. | Input | Output               | Current (Amps) | kVA  |
|----------|-------|----------------------|----------------|------|
| 6011-2P  | 120   | 0-120<br>or<br>0-140 | 120.0          | 16.8 |
| 6011-3P  |       |                      | 180.0          | 25.2 |
| 6011-4P  |       |                      | 240.0          | 33.6 |
| 6011-5P  |       |                      | 300.0          | 42.0 |
| 6011-6P  |       |                      | 360.0          | 50.4 |
| 6011-7P  |       |                      | 420.0          | 58.8 |
| 6011-8P  |       |                      | 480.0          | 67.2 |
| 6011-9P  |       |                      | 540.0          | 75.6 |
| 6020-2P  | 240   | 0-240<br>or<br>0-280 | 70.0           | 19.6 |
| 6020-3P  |       |                      | 105.0          | 29.4 |
| 6020-4P  |       |                      | 140.0          | 39.2 |
| 6020-5P  |       |                      | 175.0          | 49.0 |
| 6020-6P  |       |                      | 210.0          | 58.8 |
| 6020-7P  |       |                      | 245.0          | 68.6 |
| 6020-8P  |       |                      | 280.0          | 78.4 |
| 6020-9P  |       |                      | 315.0          | 88.2 |

### Three Phase Models

| Part No.  | Input                | Output                                               | Current (Amps) | kVA   |
|-----------|----------------------|------------------------------------------------------|----------------|-------|
| 221B-3    | 208/120<br>or<br>240 | 0-208/120<br>or<br>0-240<br>with<br>208/120<br>input | 2.5            | 1.0   |
| 291-3     |                      |                                                      | 3.0            | 1.25  |
| 501C-3    |                      |                                                      | 5.0            | 2.1   |
| 1010B-3   |                      | 0-240<br>or<br>0-280<br>with<br>240<br>input         | 10.0           | 4.2   |
| 1510-3    |                      |                                                      | 15.0           | 6.2   |
| 2510-3    |                      |                                                      | 25.0           | 10.4  |
| 6011-3Y   |                      |                                                      | 60.0           | 24.9  |
| 6011-6Y   |                      |                                                      | 120.0          | 49.8  |
| 6011-9Y   |                      |                                                      | 180.0          | 74.7  |
| M6011-12Y |                      |                                                      | 240.0          | 99.6  |
| M6011-15Y |                      |                                                      | 300.0          | 124.5 |
| M6011-18Y |                      |                                                      | 360.0          | 149.4 |
| M6011-21Y |                      |                                                      | 420.0          | 174.3 |
| M6011-24Y |                      |                                                      | 480.0          | 199.2 |
| M6011-27Y |                      |                                                      | 540.0          | 224.1 |
| M6011-30Y |                      |                                                      | 600.0          | 249.0 |
| M6011-33Y |                      |                                                      | 660.0          | 273.9 |
| M6011-36Y |                      |                                                      | 720.0          | 298.8 |
| 1020B-3   | 480/277<br>or<br>480 | 0-480/277<br>or<br>0-560<br>with<br>480/277<br>input | 3.5            | 3.4   |
| 1520-3    |                      |                                                      | 9.5            | 9.2   |
| 2520-3    |                      |                                                      | 10.0           | 9.7   |
| 6020-3Y*  |                      |                                                      | 35.0           | 33.9  |
| 6020-6Y   |                      |                                                      | 70.0           | 67.8  |
| 6020-9Y   |                      |                                                      | 105.0          | 101.7 |
| M6020-12Y |                      |                                                      | 140.0          | 135.6 |
| M6020-15Y |                      |                                                      | 175.0          | 169.5 |
| M6020-18Y |                      |                                                      | 210.0          | 203.5 |
| M6020-21Y |                      |                                                      | 245.0          | 237.4 |
| M6020-24Y |                      |                                                      | 280.0          | 271.3 |
| M6020-27Y |                      |                                                      | 315.0          | 305.1 |
| M6020-30Y |                      |                                                      | 350.0          | 339.1 |
| M6020-33Y |                      |                                                      | 385.0          | 373.0 |
| M6020-36Y |                      |                                                      | 420.0          | 406.9 |

\* All 6020 Three Phase Models are rated for 575 volts 60 Hz input, 0-575 volts output.

## Service Options

With our ServiStar® program, a wide range of planned maintenance and extended service options are offered to maximize equipment life and reliability of your FirstLine® UPS. Through an extensive network of factory trained professionals you receive:

- Annual Service Plan
- 24/7 Emergency Service
- Preventive Maintenance
- Programs tailored to meet your needs

## About Staco Energy Products

*Since 1937, customers worldwide have been relying on Staco Energy Products Company to deliver voltage control and power quality solutions tailored to their needs.*

*As a leading power quality resource, we offer our customers world-class support; from our thorough applications assessment, to our ability to design and deliver a solution that is tailored to the specific needs of our customers; through delivery and commissioning.*

*Our professional, factory trained service team is in place to ensure that our customers' revenues are protected, and their investment provides them with many years of trouble free operation.*

*Staco develops total power solutions for OEM and end user applications.*

***In addition to Variable Transformers we offer a wide array of power quality products, including:***

- **Uninterruptible Power Supplies**
- **Power Conditioners**
- **Voltage Regulators**
- **Power Factor Correction and Harmonic Mitigation**
- **Active Harmonic Filters**
- **Variable Transformers**
- **Custom Engineered Test Sets**



**STACO  
ENERGY  
PRODUCTS CO.**

*Your Tailored Power Solutions Provider™*

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**ISO**  
9001:2008  
CERTIFIED

**For more information about Variable Transformers**

**[www.stacoenergy.com](http://www.stacoenergy.com)**



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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