VECTROL INC.

1010 WESTMORE AVE., ROCKVILLE, MARYLAND 20850 TEL. (301) 424-6900

TELEX 89-547

January 22, 1973

H. Tracy Hall, Inc.
c/o J. Martin Neil
166B Eatoncrest Drive
Eatontown, New Jersey 07724

Dear Mr. Neil:

Thank you for your interest in our power control product line. I would like to suggest a model VPAC613-208-15A for your application which contains the following features:

| | |
|---|---|
| OUTPUT: | 63 amperes @208VAC |
| INPUT: | 0-5VDC feedback signal |
| CONTROL: | Externally mounted potentiometer to set desired output level. |
| FIRING MODE: | Phase Angle Firing |
| SOFT START | |
| Voltage Regulation Amplifier | |

The current limit option is not required to maintain the control you are looking for; however, you may want to add that function for protection. If you anticipate the possibility of shorting on the secondary you will have the ability to limit current flow to something less than nameplate rating. The response time of the current limit circuit is a maximum of one cycle. The SCR devices will be subjected to a maximum of one cycle surge current due to occasional shorting before current limit takes hold and phases back the output.

On initial start-up the soft start function will gradually increase the output signal over a $\frac{1}{2}$ second period. If a short occurs at start up the combination of soft start and current limit will prevent the SCR devices from seeing any current surge at all.

Mr. Neil, I believe our VPAC613 is very well suited to your application and will provide the regulation you require. Our delivery time at present is approximately six weeks and the price schedule is as follows:

| | | |
|---|---|---|
| VPAC 613-208-15A | - | $307.00 ea. |
| Optional current limit (L) add | | $ 35.00 |

continued--

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Thank you again for your interest. If we may offer additional assistance, please call on us. We look forward to placing your order in the immediate furture.

Very truly yours,

VECTROL, INC.

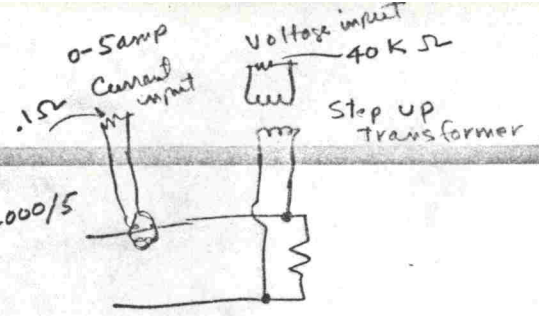
William J. Strayton

William J. Strayton
Sales Manager-Power Controllers

WJS/bh

GOULD

Bulletin 441-46
September, 1972




# A-C Watt Converter

Model 11-5201-051656

## Features

Measures 3 phase or single phase A-C power.

Connects directly into 480 Volt industrial circuits.

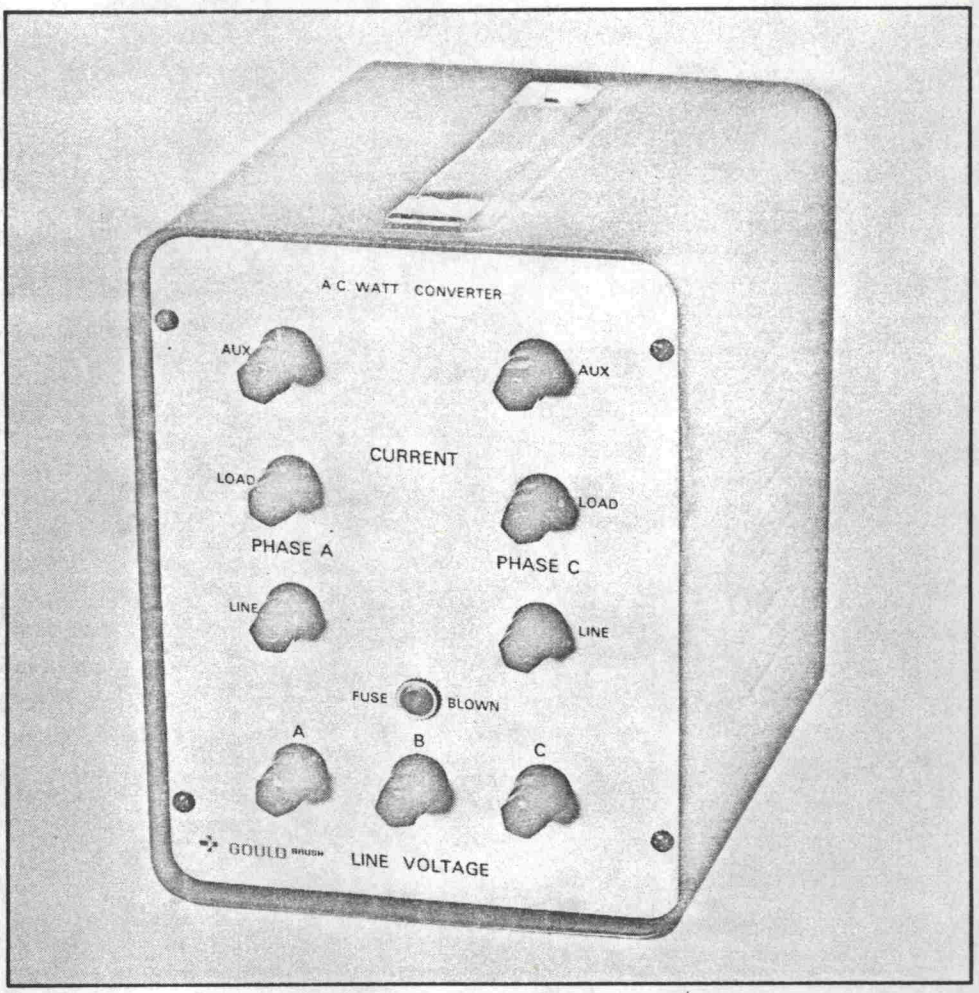
Calibrated D-C output is proportional to forward or reverse power flow.

Accurate within 1% over wide range of environmental conditions.

Fast response — less than 25 millisec to a step input.

Computes true A-C power.

No operating controls; can be installed remotely.




The Brush A-C Watt Converter is ideal for monitoring and recording true a-c power delivered to a load in single phase or 3 phase, 50-60 Hz circuits up to 480V. Its fast response (less than 25 millisec to a step input) allows accurate recording of shock loads, motor starting transients, and machine performance characteristics over a wide range of operating conditions.

This unique device senses a-c current amplitude and direction, a-c voltage amplitude, and the phase angle between them; and provides a calibrated output of ±5V d-c full scale which is directly proportional to forward or reverse a-c power flow. Linearity of the output signal is better than 99% full scale.

The Brush A-C Watt Converter's isolated current inputs are rated at 5 amperes but will accept up to 10 amperes continuously and peaks up to 50 amperes for 5 seconds without damage. Available current transformers adapt the unit to measure currents from 10 to 1500 amperes.

The all solid-state converter utilizes a 2-element Hall Effect transducer to measure either single phase, balanced 3 phase or unbalanced 3 phase (3 wire) a-c power. Input circuits accept up to 750V rms and isolation of 1500V between input and output eliminates the need for external potential transformers on most industrial circuits.

Designed without any operating controls, the unit can be located close to the power measuring point and its input leads held to minimum length. The calibrated full-scale output of ±5V d-c can be transmitted over 2-wire signal circuits for long distances without difficulty.

# A-C Watt Converter

**Specifications**

| | |
|---|---|
| Input Voltage | |
| Rated | 480 volts, rms |
| Maximum Continuous | 750 volts, rms |
| Input Current | |
| Rated | 5 amps, rms |
| Maximum Continuous | 10 amps, rms |
| Transients (5 seconds max) | 50 amps, rms |
| Input Impedance | |
| Current | Less than 0.1 ohm |
| Voltage | Approx. 40,000 ohms |
| Input Frequency | 50 to 60 Hz |
| Conversion Technique | 2-element Hall Effect transducer |
| Power Factor (leading or lagging) | 1 to 0.5 |
| Output Voltage, Rated | ±5.0 volts d-c into 50K ohms |
| Output Polarity | (+) for forward a-c power flow (–) for reverse a-c power flow |
| Output Ripple (peak to peak) | Less than 1.0% full scale |
| Internal Controls | |
| Position | ±2.5% full scale |
| Span | ±10% full scale |
| Response Time (0 to 90%) | 25 millisec. |
| Nonlinearity | Less than 1% full scale |
| Dielectric Test, all circuits to case | 1500 volts, rms |
| Temperature, Rated Ambient | 68°F to 86°F |
| Temperature Instability (20°F to 140°F) | Output changes less than 1% full scale. |
| Output Impedance | 5000 ohms |
| Power Requirements | 120 volts ±20%, 50-400 Hz, 2 watts |
| Dimensions, Basic Enclosure | 6" w x 8" h x 8" d<br>(15.2cm x 20.3cm x 20.3cm) |
| Weight | Less than 5 lbs. (2.3 kg) |
| Input Circuits (5.0 V output) | 3 phase, 480 V, 3 wire, unbalanced<br>3 phase, 480 V, 3 wire, balanced<br>1 phase, 480 V, 2 wire |
| Input Circuits (2.5 V output) | 3 phase, 240 V, 3 wire, unbalanced<br>3 phase, 240 V, 3 wire, balanced<br>1 phase, 240 V, 2 wire |
| Rated Power Inputs | |
| 3 phase, 3 wire, 480V, 5 amps | 5000 watts |
| 1 phase, 2 wire, 480V, 5 amps | 2500 watts |
| 3 phase, 3 wire, 240V, 5 amps | 2500 watts |
| 1 phase, 2 wire, 240V, 5 amps | 1250 watts |
| High Current Inputs | From 10 to 1500 amps with external current transformers |

40007810

**Gould Inc., Instrument Systems Division**
3631 Perkins Ave., Cleveland, Ohio 44114
Telephone (216) 361-3315

GOULD BRUSH