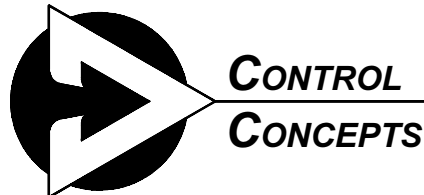


**CONTROL  
CONCEPTS  
INC.**

**INSTRUCTION MANUAL  
MODEL 1026**



Distributed Worldwide By  
[www.mcgoff-bethune.com](http://www.mcgoff-bethune.com)  
1-800-303-4705  
+1-770-840-9811

## DESCRIPTION:

The model 1026 is a single-phase, zero-cross SCR controller capable of accepting ON-OFF control signals of 120 Vac or 240 Vac. When the control signal is applied, power is applied to the load at the beginning of the next electrical half cycle. When the control signal is removed, the power is removed at the end of the next electrical half cycle. Power is, therefore, always applied and removed from the load when the instantaneous supply voltage is zero.

The 1026 circuit provides the proper loading to triacs and other solid state switching devices to insure correct turn-on of the switching device and to insure that the leakage current from these devices when in the off state does not cause false operation of the SCR controller.

Electrical isolation is provided between the load and line voltage and the control signal.

## MODEL No IDENTIFICATION:

### 1026-CCC-VV-AA

**CCC** = Control Signal Voltage:

120 = 120 Volts AC

240 = 240 Volts AC

**VV** = Nominal Line Voltage:

12 = 120 Volts

24 = 240 Volts

48 = 480 Volts

**AA** = Continuous rated RMS load current:

10, 20, 30, 40 or 70 Amps.

## SPECIFICATIONS:

### Surge Current:

6.0 times rated current for 1 cycle

2.8 times rated current for 1 second

### Supply Voltage:

120 Vac, 240 Vac or 480 Vac

+10%, -50% rated 50/60 Hertz

### Ambient Temperature:

Operating 0 to 55°C

Storage -40 to 80°C

### Humidity:

0 to 95%

### Control Signal:

Range:  $\pm 20\%$  of nominal

Input impedance: 16.67 ohms/Volt  
(120 V = 2000 Ohms)

Maximum Off

State leakage: 20mA.

### Isolation:

2500 Volts RMS input signal to load and line voltage.

## INSTALLATION:

The device must be mounted on a vertical surface as shown such that air flows over the heat radiating fins. Connect the control signal as shown to the removable connector on the printed circuit board. Connect one line of the power supply to the terminal labeled LINE and one end of the load to the terminal labeled LOAD on the controller. Connect the other end of the load to the supply as shown in the wiring diagram.

## ELECTRICAL DIAGRAM:

**CLASS 'T' FUSES ARE RECOMMENDED TO PROTECT SCR'S AND LOAD.**

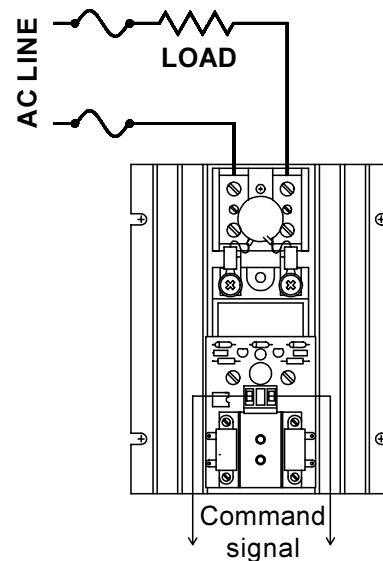


Figure 1. Electrical connections.

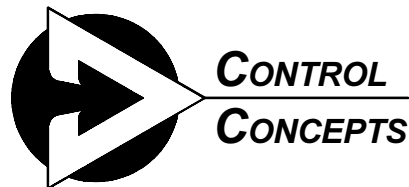
## REFERENCE DRAWINGS:

B1000303C

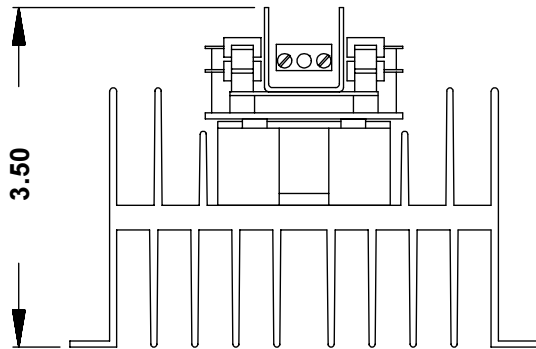
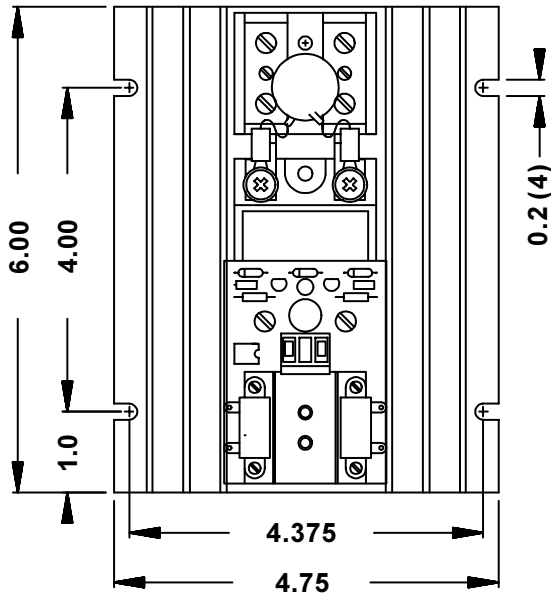
Schematic

AS1401

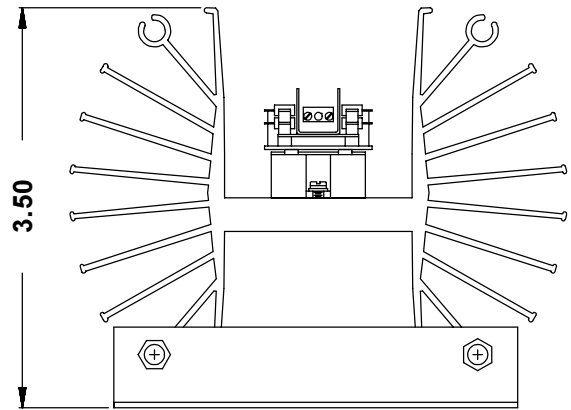
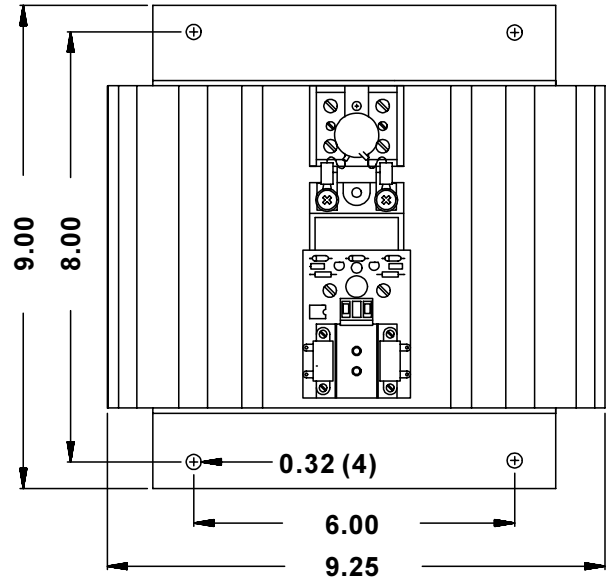
Transformer Inst. Dwg.



**DIMENSIONS:**



**Figure 2.** 10, 20, 30 & 40 amps.



**Figure 3.** 70 amps.