



CONTROL CONCEPTS

3869

Three Phase, 6 SCR
DC Power Controller



Description

The Model 3869 is a DC power controller that linearly controls (with respect to a command signal), either the voltage or current applied to a load, by phase-angle operation of 6 SCR's in a 3 phase rectifier bridge.

Features

Run or idle input selection.

This feature provides a convenient means by which the DC output can be controlled by either of two command signals for Run/Idle control or Auto/Manual control.

Start-stop operation.

A "RUN" input on the command connector is provided for Start-Stop operation. A contact closure is required to enable the gate drives to the SCR's.

Selectable slew rate.

Slew rate is the speed at which the output changes, given a step change of the command signal.

Slew rate = the time required for 62% of the change to occur.

A switch is provided on the circuit board which will allow the user to select **fast** or **ramp** start-up.

The **fast** feature is useful if the controller is used in an application where short bursts of power are required.

The **ramp** feature is useful to obtain stability when current is controlled and the load has a high inductive characteristic.

Applications

- Battery Charging
- Plating and Anodizing
- Motor-Generator Field Excitation

Voltage metering output.

A DC output signal is proportional to the average DC load voltage. 1 volt equals 100 volts to the load.

Phase rotation sensing.

The controller is not phase rotation sensitive.

User selectable input ranges.

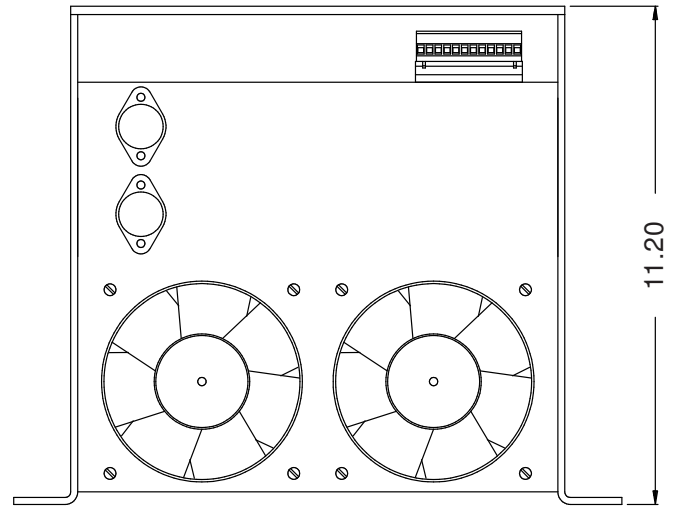
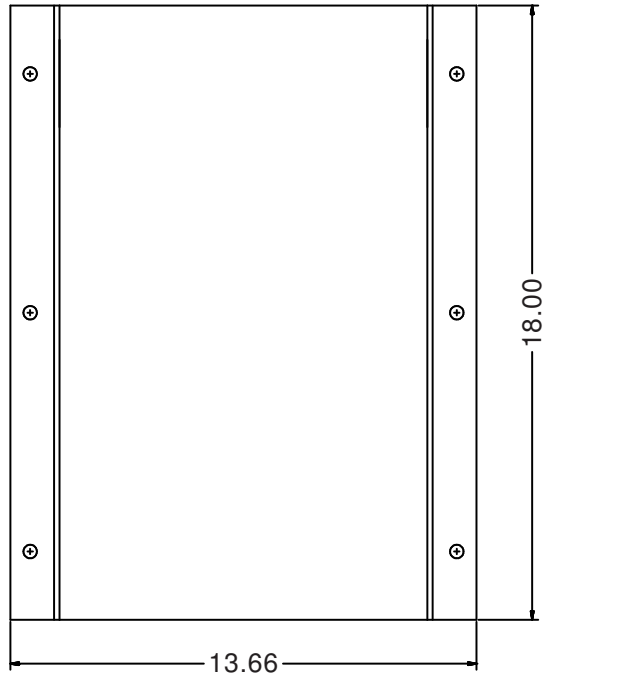
The 3869 controller can accept a variety of command signals including 0 to 5Vdc, 0 to 10Vdc, 4/20mA or a potentiometer input. Dip switches are provided to select the input ranges. The model number specifies how these switches will be set at the factory. The controller can be factory modified to accept other command signals.

The command signal input terminals are electrically isolated from the line and load voltages, and all are electrically isolated from the heatsink.

LED indicators.

LEDs are included to indicate the status of the controller.

Dimensions



Ordering Information

Model: _____ 3869 - (xx-300) - (xxx)Vdc - R(xx/xx) - I(xx/xx) - (TS)

Line voltage: _____

12 = 120Vac, **24** = 240Vac, **48** = 480Vac
(Other voltages may be available)

Output Voltage at 100% command: _____

125Vdc, **250Vdc** or **500Vdc** (Other voltages may be available)

Run command: _____

R0/5Vdc, **R0/10Vdc**, **R4/20mA** or **RPot**,

Idle command: _____

I0/5Vdc, **I0/10Vdc**, **I4/20mA** or **IPot**,

Thermostat, (Optional): _____

TS87C = 87°C norm closed, or **TS87CNO** = 87°C norm. open.

About Control Concepts

Control Concepts, Inc., with a full range of standard and custom SCR power controllers, signal conditioners and accessories, has the expertise to meet your specific industrial power control needs.

All of Control Concepts products are covered by a limited two year warranty.

Call us for answers, and delivery schedules that work.

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