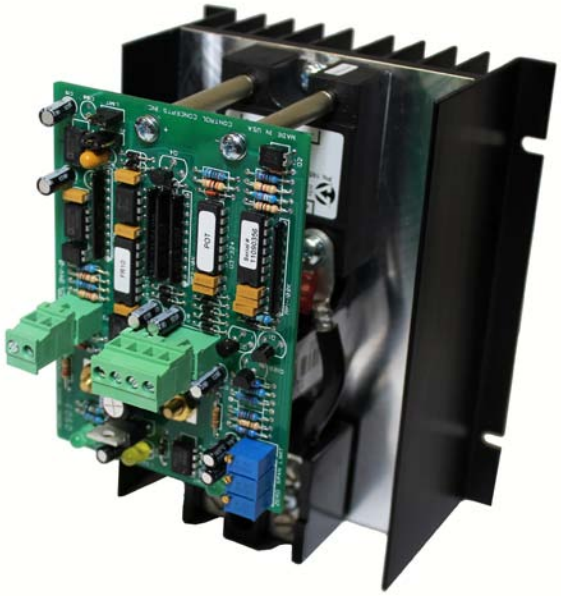
CONTROL CONCEPTS

1032A

Single-Phase Phase Angle
SCR Power Controller

FEATURES

- Phase-Angle Control
- True RMS Load Voltage or True RMS Load Current is Linear with Command
- True RMS Current Limit or True RMS Voltage Limit, Both User Adjustable
- Soft Start with Missing Cycle Detection
- Diagnostic/Status LEDs
- Isolated Heatsink and Command Signal



APPLICATIONS

- Variable Resistance Loads
  - Silicon Carbide
  - Molybdenum Disilicide
- T-3 Lamps
- Transformer Coupled Loads
- Tungsten Heating Elements
- Non-Linear Resistance Heaters

LISTED 3L32 INDUSTRIAL CONTROL EQUIPMENT E136219

CERTIFIED BY UL TO CANADIAN NATIONAL STANDARDS

PROUDLY DESIGNED & ASSEMBLED IN THE USA

DESCRIPTION

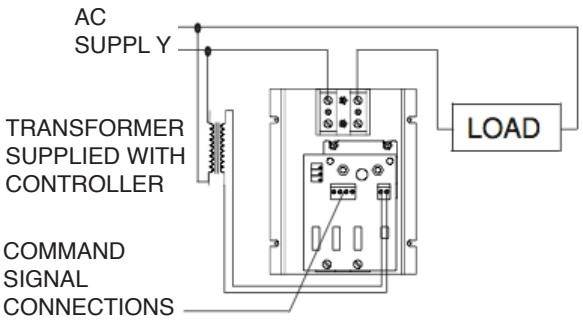
The model 1032A is a single-phase, phase-angle SCR power controller that features either RMS voltage control or RMS current control, user adjustable RMS current limiting or voltage limiting, soft start with missing cycle detection and line voltage compensation.

The model 1032A linearly controls the RMS value of the voltage (or current) applied to a load with respect to the command signal. This is accomplished by varying the time, within each electrical half cycle, that power is applied to the load. The RMS load voltage (or current) will be linear up to the RMS current limit (or RMS voltage limit) set point with respect to the command signal.

The RMS current limit (or voltage limit) feature is user adjustable over a range from 20% to 110% of the controller rating. RMS current limiting is used to prevent excessive currents in loads that exhibit large cold to hot resistance changes such as tungsten and to limit the power applied to variable resistance loads such as silicon carbide and molybdenum disilicide. RMS voltage limiting is used to prevent the load voltage from going over a user set maximum voltage.

Soft start prevents saturation of load transformers and limits inrush currents by controlling the rate at which the load voltage is allowed to change. Missing cycle detection sets the output voltage to zero and reinitiates the soft start on power interruptions of one half cycle or more.

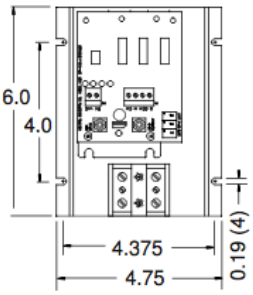
WIRING

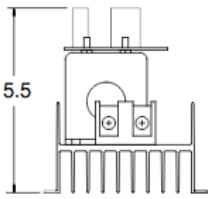


SPECIFICATIONS

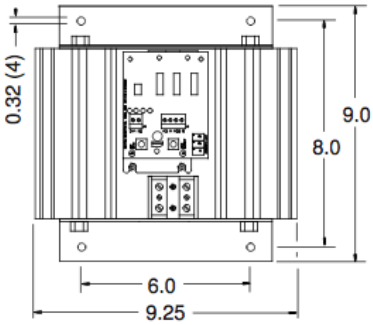
Control Mode	Single-phase, phase angle control of the RMS load voltage (or current).
Command Signal	Signal / Impedance 0-5Vdc / 100K Ohms 0-10Vdc / 200K Ohms 1-20K Pot. / 200K Ohms 4/20mA / 300 Ohms
Control Range	0 to 97% of line voltage.
Linearity	RMS load voltage (or current) is linear within 2% of span of the command signal.
Zero and Span	User adjustable over a range of 20% of span. Factory preset.
Current or Voltage Limit	User adjustable over a range from 20% to 110% of rated current (or voltage).
Isolation	Dielectric strength, input/output and load voltage/heatsink: 2500V(RMS)
Mounting	Panel mount. Heatsink fins vertical.
Line Voltage	120, 240, 480, and 575 Vac +10%, -20%, 50/60 Hz. Other voltages available.
Line/Load Connections	Compression lugs accept #2 to #14 Copper or #2 to #8 Aluminum.
Load Current	Models available with current ratings of 10, 20, 30, 40 or 70 Amps RMS.
dv/dt and Transient Voltage	200 volts/microsecond minimum. Uses a dv/dt snubber and a metal oxide varistor (MOV).
Cooling	Convection.
Weight	10A thru 40A, 5 pounds; 70A, 9 pounds.
Temperature	Operating: 0 to +55 C (+32 to +131 F) Storage: -40 to +80 C (-40 to +176 F)
Heat Dissipation	1.5 Watts per amp of controlled current.
Fusing	Special semiconductor fuses are not required. Class T fuses are recommended to protect controller and load.

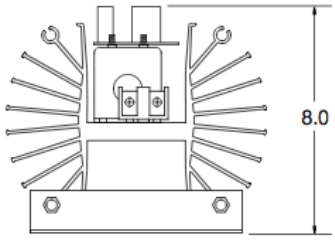
DIMENSIONS





10 to 40 AMP





70 AMP

ORDERING INFO

1032A Phase Angle SCR Power Controller with Current Limit

- Control Mode: V = True RMS Voltage Feedback, I = True RMS Current Feedback
- Voltage Rating: 12=120V, 24=240V, 48=480V, 57=575V. Other voltages available.
- Current Rating: 10, 20, 30, 40, or 70 Amps
- Command Signal: 0/5 Vdc, 0/10 Vdc, 4/20 mA, or Potentiometer
- Current Limit (IL) or Voltage Limit (VL)

1032A - V - 48 - 40 - 0/5 V - IL35

ABOUT US

Control Concepts, Inc. has the expertise to meet your specific industrial power control needs with a full range of standard and custom SCR power controllers and signal conditioners. All Control Concepts products are covered by a limited two year warranty.

Call us for more information and assistance.

CONTROL CONCEPTS

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