

**Single-Phase Phase-Angle
Current Limiting
SCR Power Controller**

Features

- Phase Angle Control
- RMS Load Voltage Linear with Command
- True RMS User Adjustable Current Limit
- RMS Line Voltage Compensation
- Soft Start and Missing Cycle Detection
- Diagnostic LEDs
- Isolated Heatsink and Command Signal

Description

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

The model 1032 linearly controls the RMS value of the voltage 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 will be linear up to the RMS current limit set point with respect to the command signal.

The RMS current 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.

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.



Applications

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

Approvals

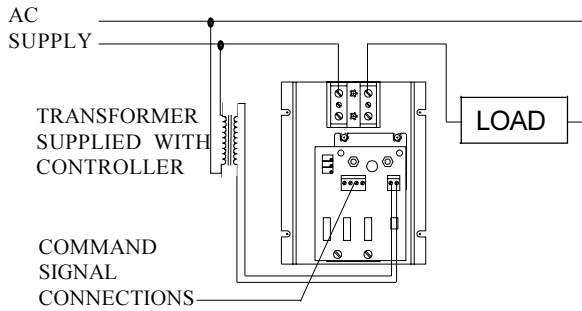


LISTED 3L32
INDUSTRIAL
CONTROL
EQUIPMENT
E136219



CERTIFIED
BY UL TO
CANADIAN
NATIONAL
STANDARDS

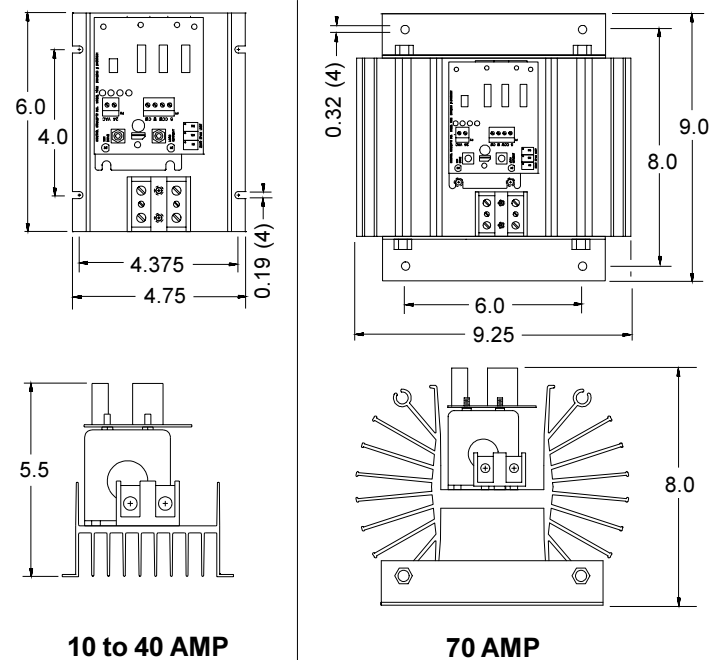
Wiring



Specifications

Control Mode	Single-phase, phase angle control of the RMS load voltage.	
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 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 Limit	User adjustable over a range from 20% to 110% of rated current.	
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



Ordering Information

1032 - (XX)V - (XX)A - (X/XX) - IL(XX)

Current Limit.

Command Signal: 0/5Vdc,
0/10Vdc, 4/20mA, or Pot.

Current Rating: 10, 20, 30, 40,
or 70 Amps.

Voltage Rating: 12=120V, 24=240V, 48=480V,
57=575V. Other voltages may be available.

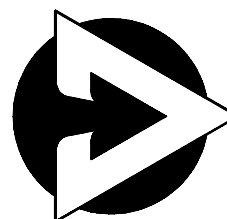
1032 Phase Angle SCR Power Controller with Current Limit.

Complementary Products

Control Concepts, Inc., with a full range of standard and custom SCR power controllers and signal conditioners, has the expertise to meet your specific industrial power control needs. SCR Power controllers available in current ratings from 10 to 2000 amps. All of Control Concepts products are covered by a full two year warranty.

Call us for answers, and delivery schedules that work.

Manufactured by



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