

## Model 5620



### Power Control Solution

The Model 5620 SCR Power Control solution is a stand-alone single-phase power control designed specifically for Research Inc. heating products. The 5620 is ideal for the test lab, small production setting, and prototype development areas.

The 5620 is available in three current ratings and will operate at one of six different line voltages. Standard features include a Standby/Operate switch, run-adjust and time-adjust potentiometers, and a run/idle/time switch make the Model 5620 an ideal controller for many applications.

Research Inc. has expertise designing power control solutions for nearly any heating application. Since 1952, our staff has helped thousands of customers specify, design, and build specialized power control systems for the control of quartz halogen lamp heating systems.

### High Reliability/Low Maintenance

*Solid-state electronic technology designed for long service life and low maintenance.*

### Precise Control

*Control current or voltage from 0 to 97% with 0.1% resolution resulting in highly accurate, smooth process control capability.*

### Multiple Line Voltages/Amperages

*Multiple models available from 120 to 480 volts and 20, 35, and 55 amps.*

### Phase Angle Power Control

*Provides precise and stable voltage control. Includes soft-start to ensure long lamp life.*

### Fast

*Switch load power on and off quickly providing the means to respond rapidly to command and load changes.*

### Control Options

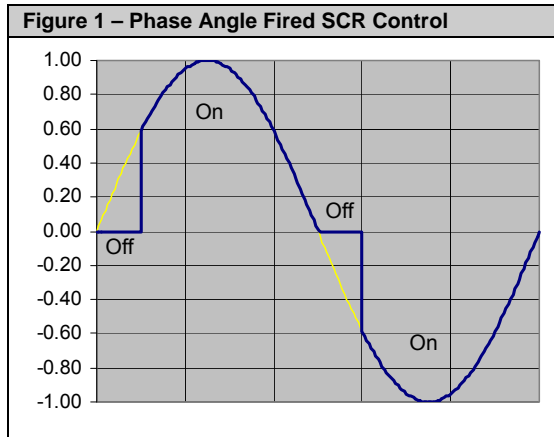
*Manual potentiometer adjustable or automatic with 4-20 mA option.*



ControlIR-5620-D-01-C

### Phase Angle Control

Phase angle power control is a technique for turning on (firing) SCRs. The amount of time the SCR is fired in each half cycle determines the power output (see Figure 1). The output with phase angle power control is very stable since the SCR 'on time' is adjusted within each AC half-cycle. The proportioning of every cycle allows gradual application of voltage to the load. The 5620 is equipped with a soft-start feature to optimize lamp life.



### Standard Features

The Model 5620 is equipped with numerous standard features designed for Research, Inc. heaters, including:

- Standby/Operate toggle switch
- One turn potentiometer allows heater power adjustment from 0 to 97%
- Idle potentiometer allows idle adjustment from 0 to 30% output voltage
- Time adjust potentiometer allows run power adjustment from 0 to 20 seconds
- Run/Idle/Timer switch

### Options

The 5620 is available with the following options:

- 4 to 20 mA input
- External Run contacts

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ControllR® Series – Model 5620

### Specifications

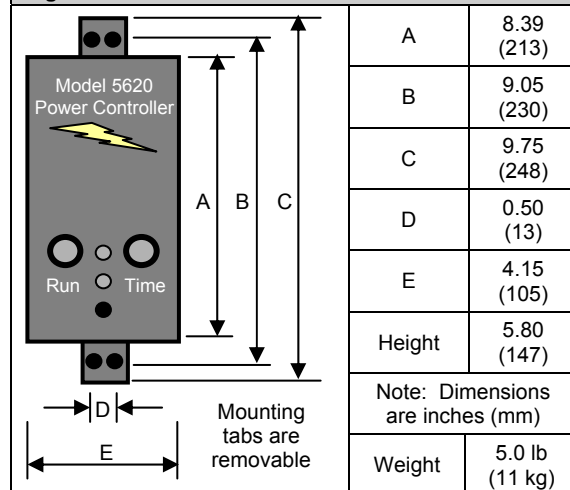
The 5620 is designed to operate in a typical industrial environment. The following lists additional specifications for the 5620:

- Operating range from 32 to 122°F (0 to 50 °C) up to 90% relative humidity
- SCR  $V_{RRM}$  rating of 1200 volts
- Electrically isolated heat sink (1500 V)
- DV/DT protection circuit (200 V/μsec) prevents AC line transients' unit damage
- Natural convection cooled

Table 1: Model 5620 Ordering Information

Model	Product Description
5620	Single Phase SCR Power Controller
Code	Line Voltage
1	120 Volts AC
2	208 Volts AC
3	240 Volts AC
4	277 Volts AC
5	380 Volts AC
6	480 Volts AC
Code	Current Capacity
1	20 Amperes
2	35 Amperes
3	55 Amperes
Code	Additional Options
SP13	External Run
SP34	4-20 mA Input
00	None

Figure 2 – Model 5620 Dimensions



Represented by: