

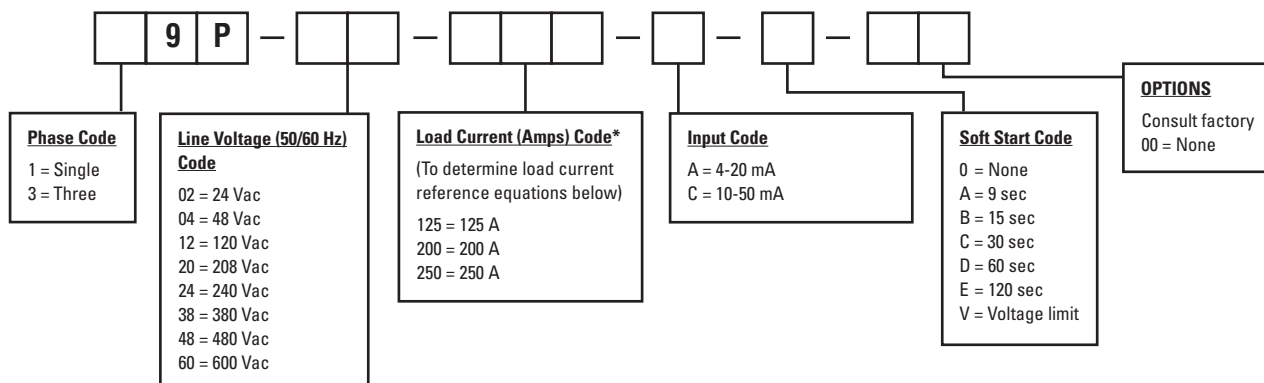
# Power Controllers Series 19P and 39P



The Athena 19P (single phase) and 39P (three phase) are phase-angle fired power controllers that can be used for control of resistive heater loads. The high amperage series provides capacity from 125 amps up to 250 amps and the controllers are designed to extend heater life while eliminating thermal shock.

- ▲ Optically Isolated
- ▲ Diagnostic Indicators
- ▲ Self-Synchronizing to Line Frequency
- ▲ Isolated Heat Sinks
- ▲ Compact Design
- ▲ Protection Against Line Voltage Spikes
- ▲ Fan Cooled

## Ordering Information



**To Order:** Determine proper line voltage, load current, and options required, if any.

## Technical Specifications

### \*Single Phase Load Current (Amps) Equation

$$\text{Total Amps} = \frac{\text{Total Watts (Load)}}{\text{Volts (Line Voltage)}}$$

### \*Three Phase Load Current (Amps) Equation

$$\text{Total Amps} = \frac{\text{Total Watts (Load)}}{1.73 \times \text{Volts (Line Voltage)}}$$

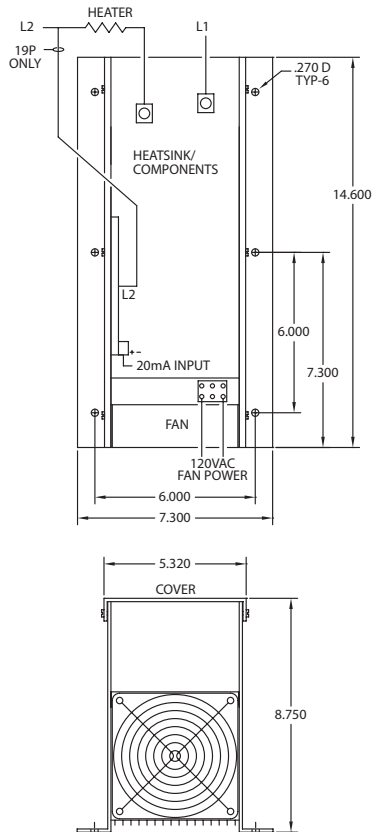
### WARNING

Branch circuit overcurrent protection is to be provided in accordance with national and local codes.

Supply Voltage	24 to 600 Vac
Frequency	50-60 Hz
Current Rating	125 - 250 A
Input Control	
Signal Isolation	2500 Vac
Transient Voltage Protection	Inherent built in immunity
Ambient Temperature	32°F to 122°F (0°C to 50°C)
Load	Resistive. 39P Three Phase, 3 Leg Half Control for 3 Wire Delta or 3 Phase Ungrounded Wye 19P Single Phase, 1 Leg Control
Diagnostic Indicators	Shorted or open SCR, open or reverse input
Cooling Specification	Fan cooled, requires 120 Vac supply voltage

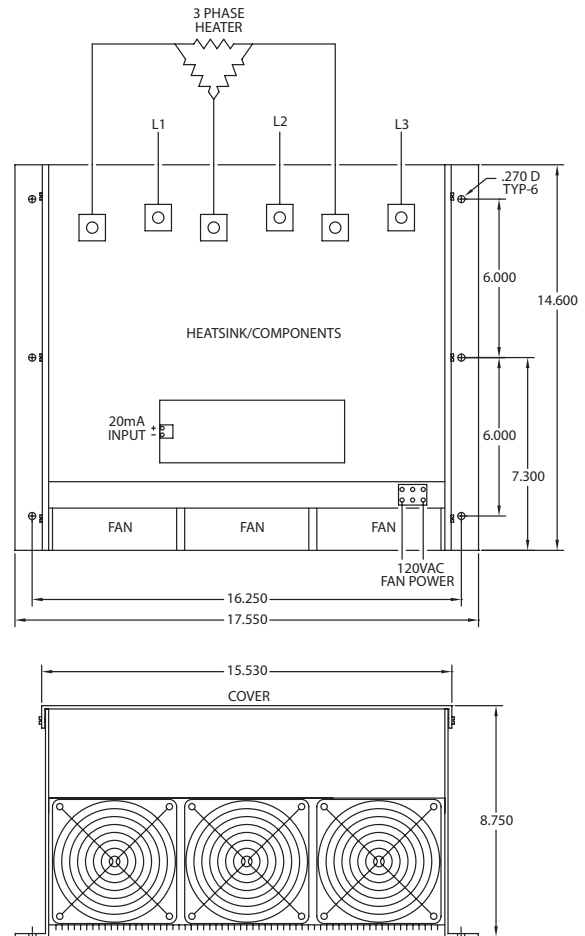
## Phase Angle Fired Controllers

The 19P and 39P SCR Phase-Angle Fired Power Controllers turn on each SCR for a controlled portion of a half-cycle of the line voltage. The effective line voltage is determined by the portion of the line voltage delivered, which is proportional to the input control signal. Additionally, the voltage is regulated as the line voltage changes.



### 19P Single Phase Controller

Amperage Size 125 Amps Weight 13.5 lbs.  
Amperage Size 200 and 250 Amps Weight 14.0 lbs.



### 39P Three Phase Controller

Amperage Size 125 Amps Weight 35.5 lbs.  
Amperage Size 200 and 250 Amps Weight 37.5 lbs.

### Accessories:

If a different input code is required other than listed, reference the Athena 90M manual station data sheet or consult Athena for your requirements.

#### Spare Fuses for Line Voltage Range from 24 thru 480 Vac:

	Part Number	Single Phase	Three Phase
125 Amps	210A044U01	1 Required	3 Required
200 Amps	210A046U01	1 Required	3 Required
250 Amps	210A045U01	1 Required	3 Required

#### Spare Fuses for Line Voltage Range from 575 thru 600 Vac:

	Part Number	Single Phase	Three Phase
125 Amps	210A047U01	1 Required	3 Required
200 Amps	210A006U01	1 Required	3 Required
250 Amps	210A048U01	1 Required	3 Required

#### Trigger Boards:

Single Phase Units	Part Number
125, 200, 250 Amps	785A432U01 - (Specify Exact Line Voltage, Single or Three Phase)
	Example: 785A432U01, 240 Vac

#### Trigger Boards:

Three Phase Units	Part Number
125, 200, 250 Amps	785A095Uxx - (Specify Exact Line Voltage, Single or Three Phase)
	Example: 785A095U01, 240 Vac



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