

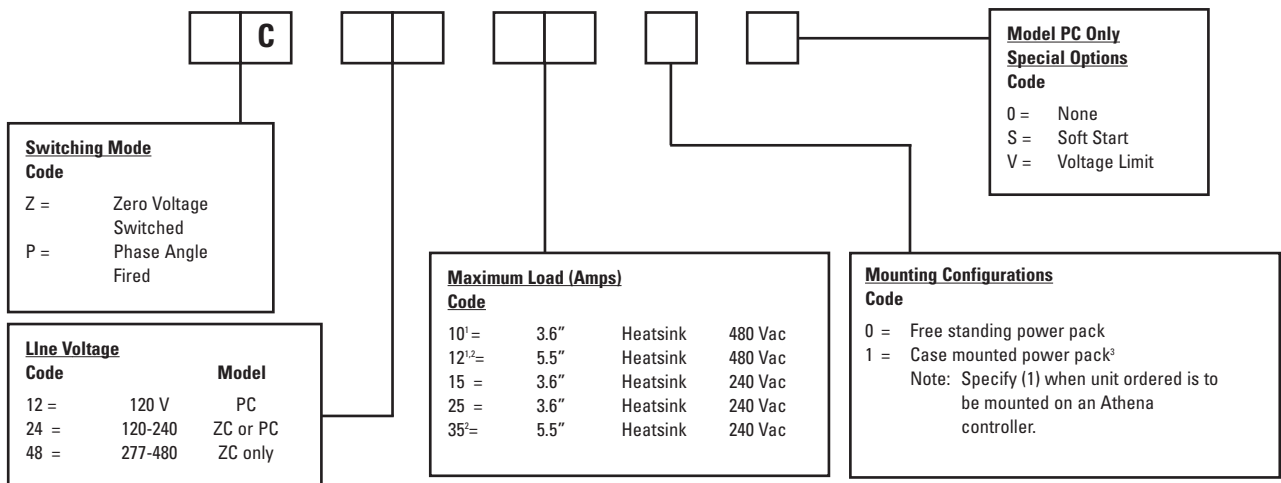
SERIES ZC & PC

Solid-State Contactors for Control of Resistive Heating Loads

- Extends Heater Life – Reduces Thermal Shock
- All Solid-State Design – No Maintenance Required
- Soft-Start and Voltage Limit (Optional on PC)
- Zero Voltage or Phase Angle-Fired
- Full Power Rating at 120° F (49° C) Ambient Temperature



Ordering Information



Example: Model ZC-2425-1-a controller with a zero voltage switching mode; a line voltage of 120-240 V; a maximum load (amps) of a 3.6" heatsink, 240 Vac; and a case-mounted power pack configuration.

CAUTION Possible fire hazard. Because these controls or associated equipment may not always fail safe, an approved temperature and/or pressure safety control should be used for safe operation.

NOTES:

¹ Only 480 Vac available. None higher. ZC only.

² Panel mounting only.

³ Not available on 35 A model



SERIES ZC & PC SOLID-STATE CONTACTORS

Inputs
(minimum voltage):

3 V input signal, minimum, is needed. Standard Athena "S" or "F" output controllers can energize up to three units in series. Model ZC- 3-32 Vdc pulsed voltage, optically isolated from output (2500 V). Requires Athena output type "S". Model PC- 4-20 mA proportional current, optically isolated from output (2500 V). Requires Athena output type "F".

Ambient Temperature:
Output Ampere Rating:
Unit Only.

120°F (49° C) maximum for rated amperes.

Resistive loads only. 277-480 Vac is ZC

Note: For greater ampere loads, consult factory.

Nominal Rating Max.						
Model	Supply Voltage	3.6" Heat Sink	5.5" Heat Sink	Peak Surge	Voltage Drop	Max. Leakage
ZC	120-240	15 A	N/A	250 A	1.6 V	15 mA
	120-240	25 A	35 A	650 A	1.6 V	15 mA
	277-480	10 A	12 A	150 A	3.2 V	1 mA
PC	120	15 A	N/A	310	5.0 V	10 mA
	120/240	25 A	35 A	310	8.0/5.0 V	10 mA

OPTIONS AVAILABLE FOR PC UNITS ONLY:

Soft-Start
Option: 0 to maximum output within 30 seconds standard. Consult factory for slower or faster turn-on times.

Voltage Limit
Option: Output limit is adjustable from 35% to 95% of line input voltage.

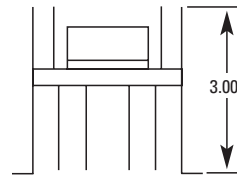
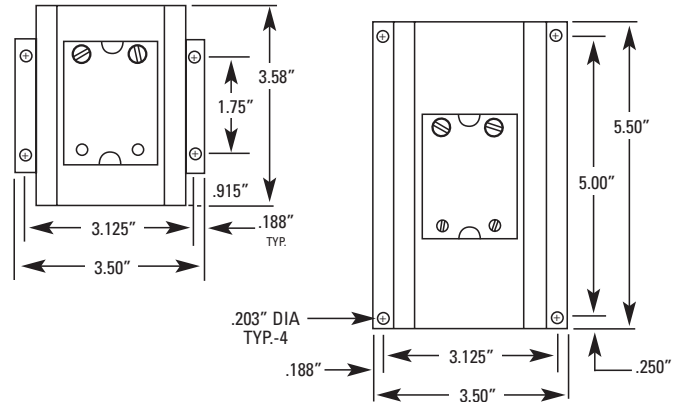
ZERO VOLTAGE SWITCHING

Series ZC contactors offer zero voltage switching for EMI/RFI free operation. A time proportional 3-32 Vdc input signal is required to energize these contactors (use with Athena "S" output controller).

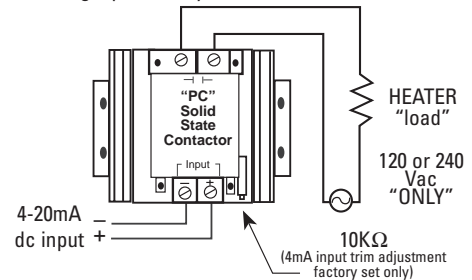
PHASE ANGLE-FIRED SWITCHING

Phase angle-fired switching provides continuously variable voltage output by governing the point of turn-on (firing) of each half cycle of the full AC sine wave. Low mass heating elements such as heating lamps and hot wires are recommended applications. Use with Athena "F" output (4-20 mA) controller.

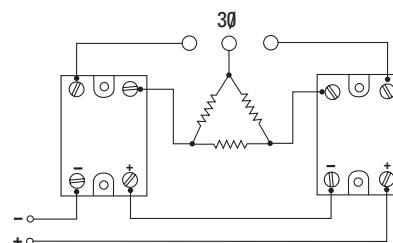
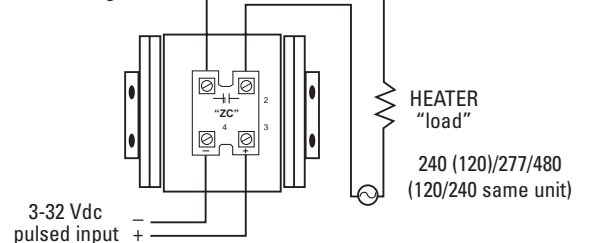
Phase angle firing allows for two options not available with ZC solid state contactors. Soft-Start provides slow turn on for high inrush loads, such as quartz lamps and Tungsten elements. Voltage limit restricts load current by capping the peak-to-peak output voltage.



PC (single phase only)



ZC - Single Phase



ZC - Three Phase