

# Proportional Environment Control (PEC)

## Proportional control with inlet capability

The PEC automatically controls the temperature in a room by operating two variable speed fans, an inlet actuator, and up to three single-speed fans or heaters.

### Easy to use and program

The PEC comes with four factory-configured operating programs you can easily reconfigure for your ideal situation. The easy-to-use keypad and menu system make the PEC one of the easiest controls to program. The PEC's advanced and powerful features are never more than a few keystrokes away.

### Versatility and peace of mind

The PEC has a 30-foot temperature probe that monitors temperatures from  $-49$  to  $122^{\circ}\text{F}$  ( $-45$  to  $50^{\circ}\text{C}$ ). For more versatility, you can connect four temperature probes together and use four-zone averaging. Temperature probes are available in 1, 6, 30, 75, or 150-foot lengths; you can extend them up to 500 feet using extension cable.

You can connect the PEC to an alarm siren or other external alarm system. Customizable alarm settings allow you to choose which alarm conditions you want to be notified about.

## Features

- ◆ Automatic temperature-based control
- ◆ Four configurable operating programs
- ◆ Two variable cooling stages for controlling fans
- ◆ Three general-purpose relays (heat or cool)
- ◆ Two inlet control relays
- ◆ One alarm relay (for external alarm system or siren)
- ◆ Customizable alarm settings
- ◆ Four-character LED display and individual stage LEDs
- ◆ Error code display
- ◆ Manual override/test mode
- ◆ Three-second full-power-turn-on for minimizing fan ice-up
- ◆ Power-failure memory protection
- ◆ Thirty-foot temperature probe, extendable to 500 feet
- ◆ *Easy System* compatible—use the optional PEC Updater to update firmware, or the PEC Saver to save or restore settings and configuration
- ◆ Rugged enclosure (corrosion resistant, water resistant, and fire retardant)
- ◆ CSA approval
- ◆ Two-year limited warranty



## Electrical ratings

- ◆ Input: 120/230 VAC, 50/60 Hz
- ◆ Variable stages: 7.5 A at 120/230 VAC, general-purpose (resistive)  
5 FLA at 120/230 VAC, PSC motor  
1/3 HP at 120 VAC, 1/2 HP at 230 VAC, PSC motor
- ◆ Relay stages: 4.4 A at 120 VAC, 2.2 A at 230 VAC, general-purpose (resistive)  
1/6 HP at 230 VAC  
360 W tungsten at 120 VAC
- ◆ Inlet relays: 4.4 A at 120 VAC, 2.2 A at 230 VAC, 5 A at 30 VDC
- ◆ Alarm relay: 0.4 A at 125 VAC, 2.0 A at 30 VDC, resistive load  
0.2 A at 125 VAC, 1.0 A at 30 VDC, inductive load
- ◆ Fuses: (2) 12 A, 250 VAC ABC-type ceramic

## Common applications

- ◆ **Livestock applications** include buildings housing calves, rabbits, goats, hogs, poultry, and turkey. In these applications, the PEC often controls ventilation in a single 20 x 40-foot or smaller room. However, the PEC is not restricted to small rooms; some customers use it to control ventilation in sow breeding rooms that are 200 feet long.
- ◆ **Greenhouse applications** include controlling ceiling louvers, variable and single-speed fans, and heaters. Some operations use the proportional feature for misting or ground heat (water pipes).
- ◆ **Business/light-industrial applications** include machine shops, garages, and utility sheds where customers use the PEC to control fans and inlets. The PEC exhausts heat from the room made by equipment and/or regulates the temperature as service bays open and close.

## Optional accessories

- ◆ **Power contactors:** increase the load handling capability of the PEC's relays and are ideal for secondary ventilation fans and electric heaters. Phason offers three power contactor options: complete units, relay and switch kits, and relay-only kits. The electrical ratings are as follows.
  - ◆ Coil: 10.2 mA at 240 VAC
  - ◆ Contact: 25 A at 240 VAC; resistive  
2 HP at 240 VAC, 1 HP at 120 VAC; motor, power factor 0.4  
1300 W at 120 VAC; tungsten
- ◆ **PEC Updater:** upgrades your PEC's firmware with new features as they become available.
- ◆ **PEC Saver:** stores a complete copy of all a PEC's configuration and settings. You can restore the configuration and settings any time, or use them to set up new PECs in seconds!
- ◆ **Easy System:** combines easy-to-use and intuitive software with a programmer.
  - ◆ **Easy Programmer:** reads and writes from Phason Easy-compatible Savers.
  - ◆ **Easy Software:** is available *free* from **www.phason.ca!** With Easy Software, you can quickly enter configuration and programming information and then save it as a file or write it to a PEC Saver. If you do not have an Easy Programmer, you can still save files to your computer and then take or e-mail them to your dealer or distributor who can program a Saver for you!

## Additional information

For more information about the PEC, PEC accessories, or other Phason products, contact your dealer or visit **www.phason.ca**.