

Economizer

Advanced Controllers for OEM Applications



The smarter, simpler way to improve efficiency

The PEAK™ Economizers turn your standalone rooftop systems into highly efficient, energy saving units. These sophisticated standalone controllers allow your customers to use fresh air for free cooling. Factory installing our pre-packaged controls platform with easy-to-read LCD display eliminates complicated set-up and configuration. The Mobile Access Portal (MAP) is an accessory that allows commissioning, configuring and maintenance from anywhere using a smart mobile device.

Sophisticated technology that's easy to install

The PEAK Economizer combines advanced technology and comfort features. You can take advantage of a flexible approach to performance. And customers get seamless communications and lower lifecycle costs.

Features

- Variety of mounting options for convenient installation.
- Flexibility to select setpoints for outside and/or supply air temperature, and small and/or large space cooling demand using either a dry bulb, outside enthalpy, or differential enthalpy.
- Simple thermostat control.
- Simplified static pressure control utilizing variable frequency drive exhaust fan control.
- A convenient USB interface that serves multiple purposes – history and trend data can be logged and upgrades to the local or a remote controller can be installed.
- Innovative Fault Detection and Diagnostics (FDD), with predictive failures, assist for lifecycle management of the equipment, service awareness, and energy costs.
- An advanced operating mode for greater control of capabilities, such as load shed for energy savings and demand controlled ventilation.
- Basic and advanced models. The basic model provides an economical solution when standard temperature and IAQ control of the outdoor air damper is required. The advanced model provides advanced control strategies, such as minimum outdoor air flow and building static pressure controls.
- Compliance with Title 24 regulations to display faults on economizer applications as mandated by the California Energy Code.
- Self-tuning PRAC control loops. A patented Pattern Recognition Adaptive Control algorithm tunes PI feedback loops. For both basic and advanced models.
- The advanced model utilizes the Mobile Access Portal (MAP) gateway to provide a user-friendly experience through any WI-FI enabled smart device for local access or an Ethernet-enabled device for remote access.

Competitive Comparison

Features	PEAK	Competitor
Plug & Play	YES	YES
PRAC+ Self Tuning Control Loops	YES	NO
Demand Ventilation	YES	YES
Energy Wheel Interface	YES	NO
On Board Display	YES	YES
Mobile Access Portal, Remote Connectivity	YES	NO
Title 24 Compliant	YES	YES
Sensor Independence	YES	NO
Actuator Independence	YES	NO
USB Port for Trends and Updates	YES	NO

Accessories

Product Code Number	Description
TE-6361E-2	Temperature Sensor
HE-6862-0N00WS	Temperature / Humidity Sensor
M9205-GGA-YK10	Damper Actuator
CD-W00-x0-2	Space CO2 Sensor (recommended)
CD-Pxx-00-0	Duct CO2 Sensor (recommended)
PK-WRH1001-0	Wiring Harness

Technical Specifications

Product Code Number	PK-ECO1001-0 – Basic PEAK Economizer PK-ECO1011-0 – Advanced PEAK Economizer
Power Supply Requirement	24 VAC (nominal, 20 VAC minimum/30 VAC maximum), 50/60 Hz, Power Supply Class 2 (North America)
Power Consumption	15 VA maximum Note: VA ratings do not include any power supplied to the peripheral devices connected to binary outputs (BOs).
Ambient Conditions	Operating: -40 to 158°F (-40 to 70°C); 10 to 90% RH noncondensing UI Operating: -4 to 158°F (-20 to 70°C); 10 to 90% RH noncondensing Storage: -40 to 194°F (-40 to 85°C); 5 to 95% RH noncondensing
Processor	RX631 Renesas® microcontroller
Memory	2 MB internal program flash, 32 KB internal E2Data flash, 4 MB external serial flash memory
Input and Output Capabilities	Basic Model: Seven AIs: three 10k RTD, four 0 to 10 VDC. One AO: 2 to 10 VDC, 10 mA maximum Five BIs: 24 VAC inputs with contact cleaning circuits Four BOs: three 24 VAC relay outputs, one Dry Contact Alarm output Advanced Model: Ten AIs: three 10k RTD, seven 0 to 10 VDC. Two AOs: 2 to 10 VDC, 10 mA maximum Six BIs: 24 VAC inputs with contact cleaning circuits Four BOs: three 24 VAC relay outputs, one Dry Contact Alarm output
Housing	UL94 5VB Plastic; self-extinguishing
Mounting	Horizontal on single 35 mm DIN rail mount or screw mount on flat surface
Dimensions (Height x Width x Depth)	5-7/8 x 6-1/2 x 2-1/8 in. (150 x 164 x 53 mm) Note: Mounting space requires an additional 2 in. (50 mm) space on top, bottom and front face of controller for easy cover removal, ventilation, and wiring terminations
Shipping	Basic Model: 1.0 lb (0.45 kg) Advanced Model: 1.0 lb (0.45 kg)
Compliance	United States: California Title 24 UL Listed, File E107041, UL 916, Energy Management Equipment. FCC Compliant to Part 15, Class B Canada: UL Listed, File E107041, CSA 22.2 No. 236, Signal Equipment Industry Canada Industry Canada Compliant - ICES-003

