

Economizer Controller

How it Works

Controller

- Mounted to a panel / ductwork in Rooftop Unit / Air Handling Unit

Functionality

- Based on outside conditions & preprogrammed controller settings
 - Will open or close the damper to make use of outside air ventilation
 - (Free cooling) without cooling the air through the use of mechanical stages

Air Quality

- Provides optional Demand Control Ventilation (DCV):
 - Monitors CO₂ levels and brings in outside air when needed



Economizer Value Proposition

Lower Energy Costs

- Immediately following installation
- Reduces Compressor Run Time
- Uses DCV control option and thereby prevents excessive intake of outdoor air based on occupancy

Improves Indoor Air Quality

- Helps ensure a healthy environment
- Improve worker productivity

Reduced Maintenance

- Reduces building system equipment maintenance / service costs over the long term



Economizer Market Fit

Vast Market

- Hundreds of thousands of existing buildings that do not have a Building Automation System but do have a Rooftop or AHU Units.

Market Need

- Organizations are:
 - Spending too much on energy
 - By constantly cooling the air entering the building
 - Looking for ways to lower operating expenses
 - Want a healthy environment for employees

Industry Standards

- Economizer meets industry standards:
- ASHRAE Standard 62 (Acceptable IAQ)
- ASHRAE Standard 90.1 (Energy Standards for Buildings)
- Standard 189.1 (High-Performance Green Buildings)



Key Features

- 1 Free cooling**
- 2 Wide temperature/Btu/lb range**
- 3 Accurate adjustment of DCV, exhaust fan levels, and minimum damper position**
- 4 Use with Siemens OpenAir® damper actuators**
- 5 Quick installation and easy commissioning**
- 6 Two-stage cooling control**
- 7 Occupancy input with default capability.**

Economizer System Components

- 1 Economizer Controller**
POL220.05
- 2 Temperature Sensors**
QAM2030.010 10K Ohm Type II NTC
- 3 Combination Temperature/Humidity sensors (Enthalpy)**
QFM2160U
- 4 CO₂ Sensor (Demand Control Ventilation – DCV)**
QPA2000
- 5 Damper Actuators**
GCA151.1P, GMA151.1P, or GQD151.1P
- 6 Remote minimum position potentiometer (optional)**
BSG61
- 7 Commercial Thermostat**
RDY2000 or commercial thermostat with two stage cooling

Channel Value Proposition

Sold into:

- Large installed base of units that are old and/or in disrepair and need to be replaced- retrofit opportunity replacing W7212 controllers
- New Installations

Economizer is a system sale:

- Includes controllers, sensors, damper actuators

