

Specifications

ecoseNSE controls to include: System Controller, Hood Controller for each hood, Temperature and Optic Sensors for each hood, Touchpad(s), and VFDs for each fan motor.

Temperature Sensors mounted in hoods shall detect the cooking appliances being turned on and operate the fans at a min speed of 30%-50%. Temperature Sensors mounted in exhaust ducts shall modulate the fan speeds above the min based on actual heat load.

Optic Sensors with Air Purge Units mounted on opposite ends of hoods shall immediately increase fan speed to 100% upon the detection of smoke or vapors. As soon as the effluent is removed the fan speeds shall slow back down and modulate according to the actual heat load.

Touchpad shall be mounted on hood or convenient location to monitor and control system. Hood Controller to be mounted on top of hoods. System Controller and VFDs to be mounted in hood end-cabinet for new construction and on wall or above ceiling for retrofits.

Remote monitoring and control shall be provided by connecting the System Controller to a building automation system via BACnet and/or Internet gateway.

Electrical contractor shall be responsible for wiring the high-voltage components including System Controller, VFDs and fan motors. ecocanopy or its Authorized Service Agency shall be responsible for wiring the low-voltage components including Hood Controller, Temperature and Optic Sensors, and Touchpad.

Field start-up shall be coordinated by ecocanopy.



Features

- Saves up to 97% fan energy and 70% conditioned air by EF and MUA fan modulation.
- Includes infrared optics and temperature sensors to detect heat and visually monitor cooking activity.
- Optic sensors mounted at ends of hoods respond in 0.2 seconds and auto-calibration for reliable savings.
- Automatically starts/stops fans based on heat from cooking appliances or programmable schedules.
- Provides remote monitoring and control via Ethernet and BACnet communications.
- ANSI/ASHRAE/IES Standard 90.1 2010 Compliant



A demand control ventilation (DCV) system that only includes a temperature sensor for detecting cooking activity shall not be permitted. Additionally a DCV that includes infrared sensors in the pathway of the smoke without benefit of separate of air purge units and auto-recalibration shall not be permitted. Modulating dampers in the exhaust ducts shall not be permitted.