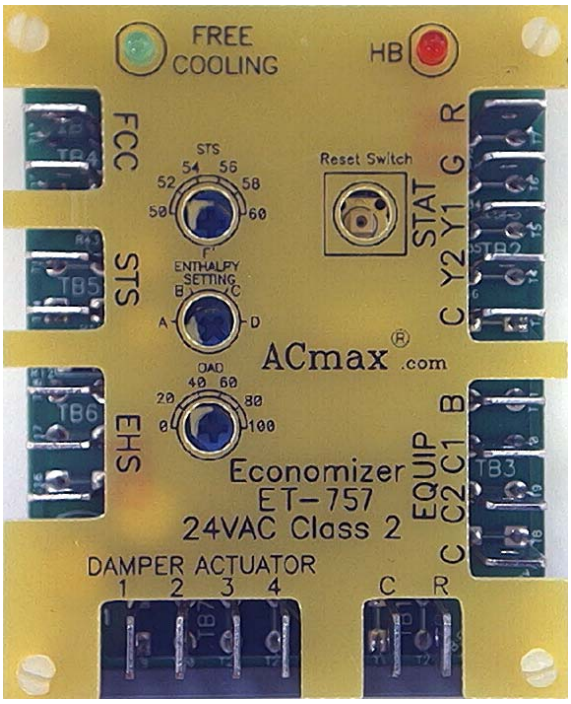
ECONOMIZER CONTROLLER ET-757



One of the challenges that HVAC design engineers face is developing an air conditioning distribution system to deliver outdoor air to the occupants of a building. This task involves determining whether the outdoor air is acceptable for a free cooling system, and then developing an air intake and mixing control system that will deliver the needed amount of outdoor air to the building at an acceptable cost.

This challenge can easily be met with the **Economizer Controller ET-757**. This controller allows a cooling air handler to supply outdoor air instead of re-circulated air in order to reduce or eliminate the need for a mechanical cooling system during mild or cold weather. If the outdoor air is below the high enthalpy (humidity and temperature) point as set on the board, and based on an analog signal from the enthalpy sensor, the controller will lock-out the compressor (mechanical cooling) and modulate the return and outdoor air dampers to maintain the cooling set point. When the outdoor air enthalpy exceeds the high enthalpy set point, the outdoor air damper moves to the set minimum position for ventilation. The ET-757 meets the requirements of AINSI/ASHRAE/IESNA Standard 90.1-2001, "Energy Standard for Buildings Except Low-Rise Buildings".

Energy saving and improved air quality make the ET-757 attractive to HVAC design engineers and building owners, not to the mention the fact that a system with such a controller usually pays for itself within one or two years.

ACmax Inc., 588 Edward Ave., Unit 39, Richmond Hill, Ontario, L4C 9Y6, Tel: (905) 737-3036, Fax: (905) 737-7319

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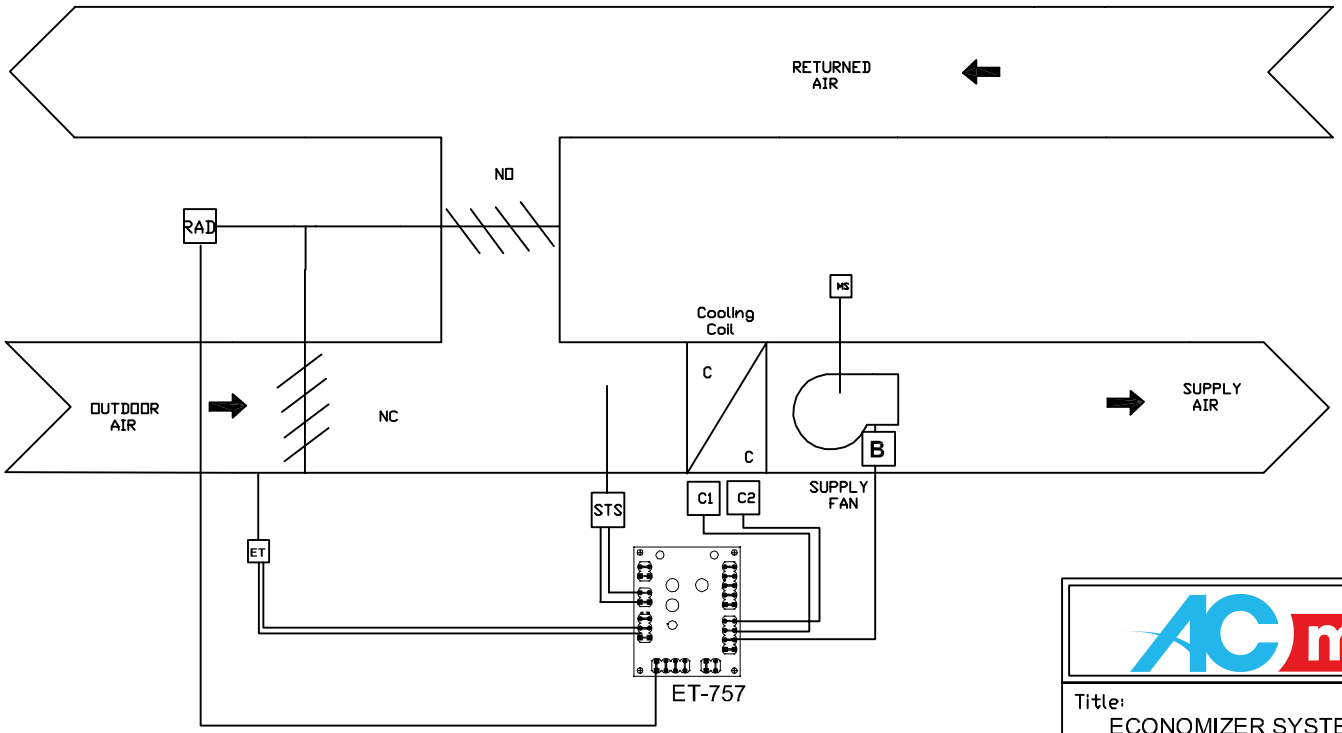
FEATURES

- Microprocessor-based controller for high accuracy and flexibility
- Enthalpy Controller input (4-20 mA signal)
- Supply or mixed air temperature input
- Input terminals for G (fan switch), Y1 (cooling 1st stage) and Y2 (cooling 2nd stage) from thermostat
- Output terminals for B (blower), C1 (1st stage compressor) and C2 (2nd stage compressor) to the A/C equipment
- Free cooling hour counter output for saving energy verification
- On-board potentiometers for easy field setup and adjustment of:
    - OAD minimum outdoor air damper setting range 0% to 100%
    - STS, supply air temperature setting, range 50 to 60°F
    - EHS enthalpy limit (four levels: A, B, C, & D)
- On-board LED status indicators for:
    - Free cooling
    - Controls, faults and diagnostics
- Built-in 45-second indoor fan purge delay
- Use the outdoor air as an emergency cooling stage after 30 minutes if mechanical cooling does not meet the cooling demand
- Built-in time delay of 30 seconds between the two compressors
- Built-in compressor anti-short cycle time delay (3 minutes)
- Mounted in snap-track for easy installation



Title:
ECONOMIZER SYSTEM LAYOUT

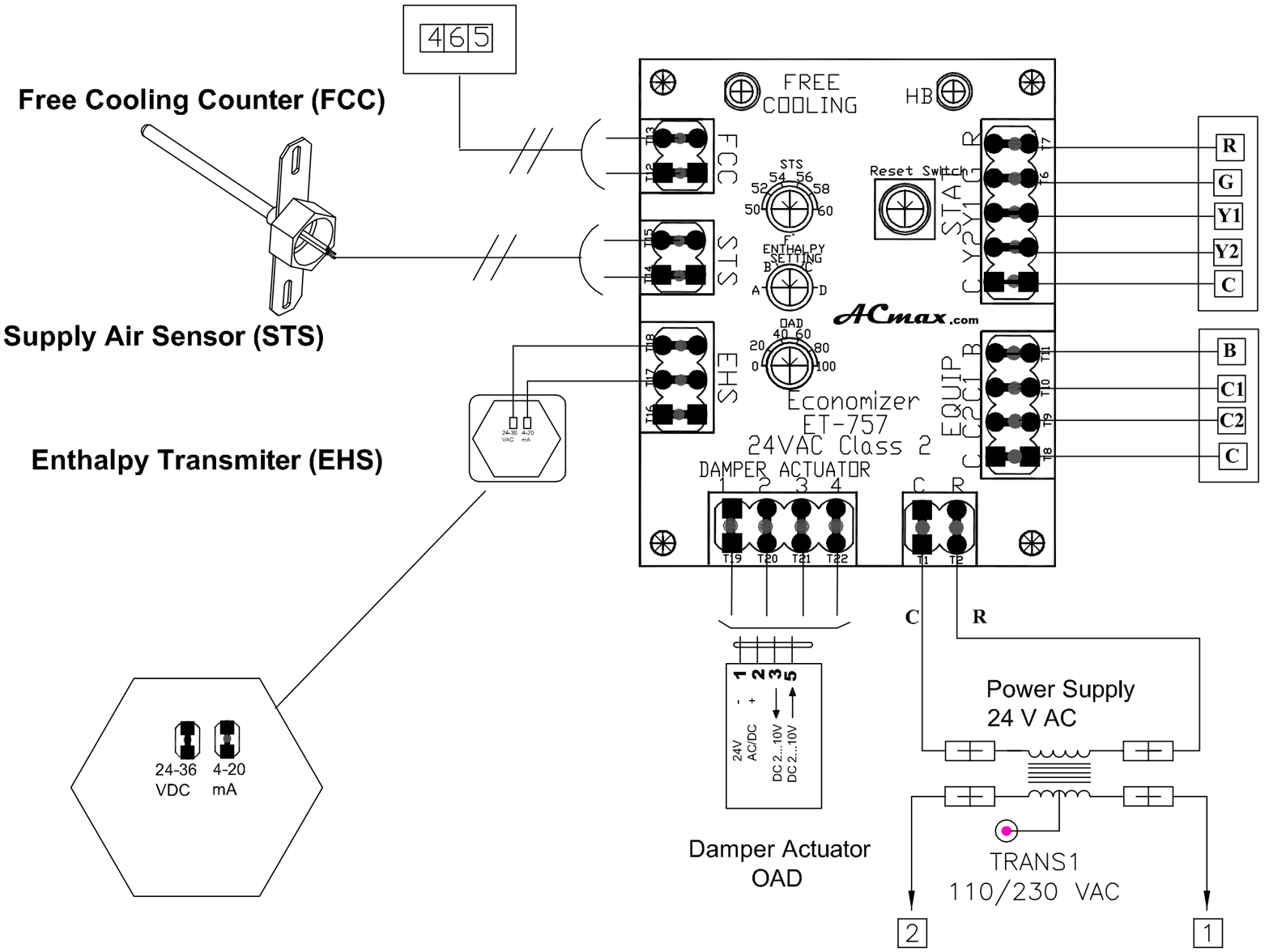
Model No.:
ET-757

Rev
A

Date: 07/29/2004

DWG No.: 000675

Control Devices
Enthalpy Transmiter(EHS) **ACMAX** Type E-620A
Supply Air Sensor (STS) **ACMAX** type E-624
Counter (FCC) **OMRON** Type H7ET-N-B
Actuator **BELIMO** Type AF 24-SR US



Title:
Economizer System Connection

Model No.:	Rev:	Date:
ET-757	E	05/10/2004
		DWG No.: 000670E

Enthalpy Controller:Model E-620A

Output: 4-20 mAmps

Control Curve	Temperature 50% RH
A	73
B	70
C	67
D	63

To use with ACmax Economizer ET-757 only