## VTRONIX

#### Single Speed Fan Board – R60B-45S2

#### **SPECIFICATION**

### Introduction

The 1 speed fan control board (R60B-45S2) is an electronic fan control board which provides, in one device, control of a line voltage fan motor. The primary purpose is to control the fan motor used in air-conditioning & heating systems. The control board is powered by 24VAC input and will accept a 24VAC fan signal from the thermostat.

#### Features

The control board has a fixed 1 second fan ON delay. There is a fixed 45 seconds post fan OFF delay in which the relay will be energized for another 45 seconds after the thermostat fan signal (G) is turned off. Screw-in terminals will be used for R, C and G connections. Fan connections will be quick connects located on the relay. The board and its 24vac output to the thermostat are protected by an in line 3A replaceable Blade type minifuse relay

#### **Electrical specification**

- Nominal Input : 24 VAC
- Operating Input range : 18-30VAC
- Fan Outputs : 12 FLA (30 LRA) at 240 VAC
- Off delay tolerance: +/- 3 sec

#### **Mechanical specification**

- PCB Material: CEM 1
- Temperature
  - i. Operating Temperature:  $-40 \circ F$  to  $+158 \circ F$  ( $-40 \circ C$  to  $+70 \circ C$ ).
  - ii. Storage temperature:  $-40 \circ F$  to  $+185 \circ F$  ( $-40 \circ C$  to  $+85 \circ C$ ).
- Humidity
  - i. Operating: 10% to 95% non-condensing,  $-22 \degree$  F to  $+104 \degree$  F (-30  $\degree$  C to  $+40 \degree$  C).
  - ii. Storage: 10% to 95% non-condensing.
- Vibration

No damage from 5G sinusoidal acceleration at 10 to 150 Hz.

- Mechanical impact

No damage or miss-operation when the sheet metal to which the device is mounted is hit with a 3 inch ball with 3 foot pounds.

- Operating Life

The relays are capable of 100K cycles at full load.

#### Dimension

PCB Dimension: 2.5" x 2.5"

#### Terminals

Line voltage connections are .250" x 0.032" quick connect terminals on top of the relay.

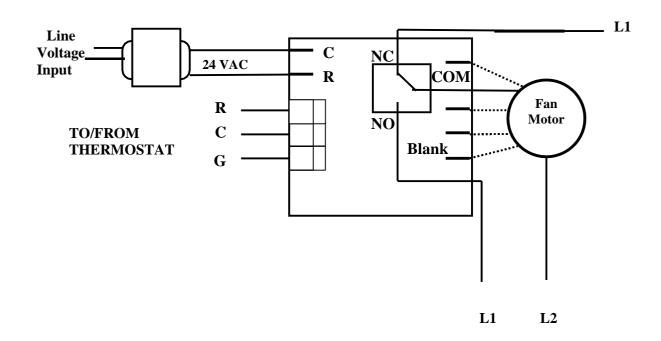
4 blank quick connects are located on the board for unused fan speed wires.

Quick connect terminals for R and C inputs.

Screw-in terminal connections for a thermostat.

- 24VAC Hot (R)
- 24VAC Neutral (C)
- Fan Output (G)

#### Wiring Diagram and Component Layout



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