

## Variable Speed Fan Controller

### General Description

Precisely modulate the speed of ventilation fans in response to changes in ambient temperature. Optimum air circulation is maintained in ventilated areas and buildings with minimum noise and efficient use of energy. A thermistor monitors the air temperature and, as the temperature rises or falls within a preset band above set point, the fan speed is correspondingly increased or reduced between maximum and minimum speed values. Typically the modulating band above set point, between the maximum and minimum speeds, is fixed at 6 °F but other bandwidths to 20 °F are available. Temperature set point is adjustable from 35 to 95 °F.

Especially designed for agricultural buildings, although of broad application in all ventilated areas, these fan controls are compact units designed to fit on a standard 4x4 junction box. Construction protects the electronic controls against dust and solid state design ensures long life and reliable operation. Fan speed motors must be permanent split capacitance or shaded pole with built-in thermal fuse. Load must decrease as RPM increases and bearings should be capable of operating at minimum RPM for phase angle speed control

### Specifications

**Voltage:** 120 or 240VAC

**Output:** 8.5A full load, 20.5A locked rotor

**Stability:** 2% FS

**Accuracy:** 5% FS

**Temperature range:** 35/95 deg F

**Set point:** Local set pot, 5 deg F divisions

**Control:** Phase control proportional, 6 deg F bandwidth

**Sensor:** NTC 20K at 77F included (#223-40058-08)

**Operating ambient:** up to 120 deg F

**Idle adjustment:** Minimum 20% of line voltage, maximum 75% of line voltage, adjusted with knob on front panel.

Fan will run at idle setting when air temperature is below set point. Please note that fan will always run even at idle.

**Maximum speed:** 90% line voltage

**Noise:** RF suppression standard

**Mounting:** To 4x4 junction box

### Dimensions

**Overall size of Unit:**

4.5 x 4.5 x 2.4 in

**Sensor:**

9/16" diameter x 7/8" long probe,  
12" leads



### Features

- Modulates fan speed in response to temperature changes
- Convenient wall mounted or junction mounted control unit
- Energy saving solid state design
- 8.5 Amp full load rating
- Accessible control adjustments
- Rugged, gasketed design to NEMA specification 547
- Wall mount to standard 4 x 4 junction box
- Variable set point 35/95F
- Variable idle (minimum) 20/75% full speed
- Modulating bandwidth 6 °F
- UL/CSA recognized

