

MODEL 51-E54-L420

A VERSATILE ALL WEATHER DIGITAL INDICATING FAN SPEED CONTROL - NEWA 4 WALL MOUNT

The Series 51 is an automatic fan modulator that provides the following features:

- Temperature Set, Idle Speed Set, Auto Fan Off Set Back, Heat On Adjustment, and Digital Display of Ambient Temperature

ELECTRICAL SPECIFICATIONS:

POWER INPUT: 120 or 240VAC 50/60 Hz, field selectable jumper.

NOTE: An internal slow action 10A fuse is included. Replace only with an identical component. Voltage selection factory set @ 240VAC.

OUTPUT (LOAD): 8.5 (full load) max. continuous 20.5A locked-rotor current, 10 seconds max.

NOTE: Output designed for low to high torque fan motors. - Suffix 0 -

KICK START: Upon initial application of power to the load, full power output conditions will prevail for approximately 3 seconds.

IDLE ADJ. RANGE: 25% to 95% of actual line voltage, average (nominal)

NOTE: The IDLE adjustment control setting includes a zero-power FAN STOP position (full CW) at which fan speed is stopped when ambient is below setpoint. The STOP function shall be overridden by the temperature control functionality, power will be applied to the fan when the measured temperature exceeds the setpoint.

WARNING: WHEN IN STOP MODE, HAZARDOUS VOLTAGES WILL STILL PREVAIL AT THE LOAD TERMINALS. DISCONNECT MAIN POWER WHEN SERVICING.

SETPOINT TEMP RANGE: 35°F to 95°F (2°C to 35°C) Ventilating application (output increases with temp rise). 80°F to 120°F (25°C to 50°C) Condenser Fan application (output increases with temperature rise).

MODULATION BAND: 6°F (3°C) nominal, factory preset. The Modulation Band is the temperature difference required to increase the output from IDLE (min. field set speed to FULL speed).

SETPOINT ACCURACY: 5% of Span, typical.

SETPOINT STABILITY: 2% of Span, typical, @ 72°F ±5°F ambient temperature.

SENSOR: NTC Thermistor, 20K ohm @ 25°C (Quantum P/N 223-40050).

OPEN SENSOR INDICATION: Fan is in STOP mode.

SECURED SENSOR PROTECTION: Fan is at FULL speed.

NOTE: Sensor is supplied pre-wired to the Series 51 Control. Standard lead length is 8" from box wall to sensor base.

HOUSING: NEWA 4 approved (fully gasketed) polymer case 6.0"L x 4.4"W x 4.0"H, excluding fittings, sensor and knobs.

AMBIENT TEMPERATURE: 0-5A full load @ 0 to 50°C, derate linearly to 2.5A at 80°C.

AUTO FAN OFF: Fan Off Set Back Internally adjustable from 2°F to 20°F below setpoint. In the Set Back position, the fan motor will disable as room temperature drops by the °F differential below the setpoint temperature. Factory preset @ -20°F

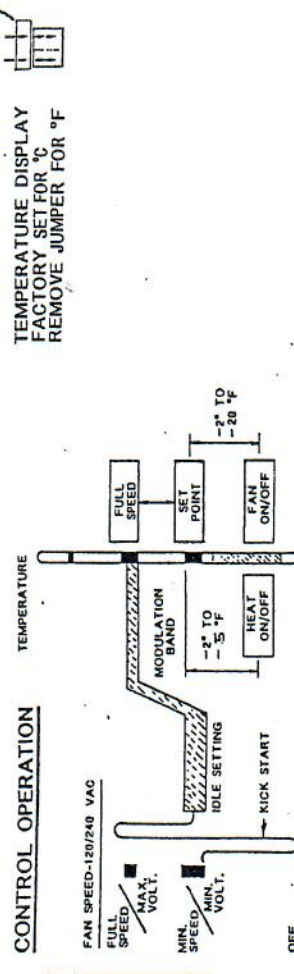
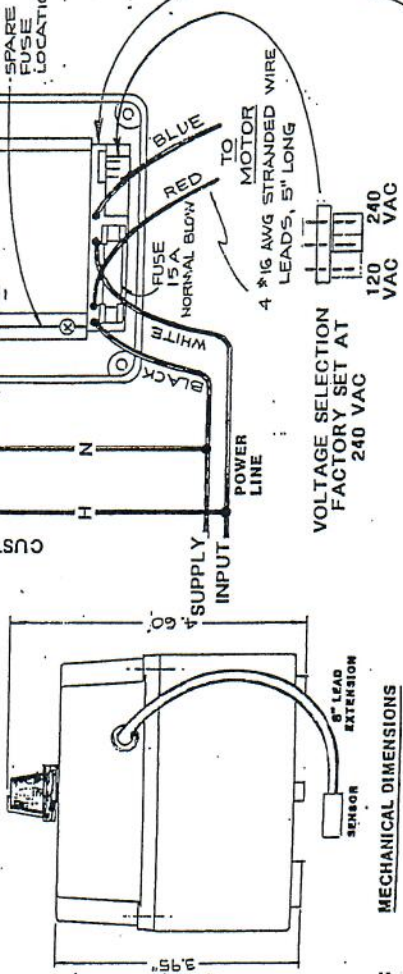
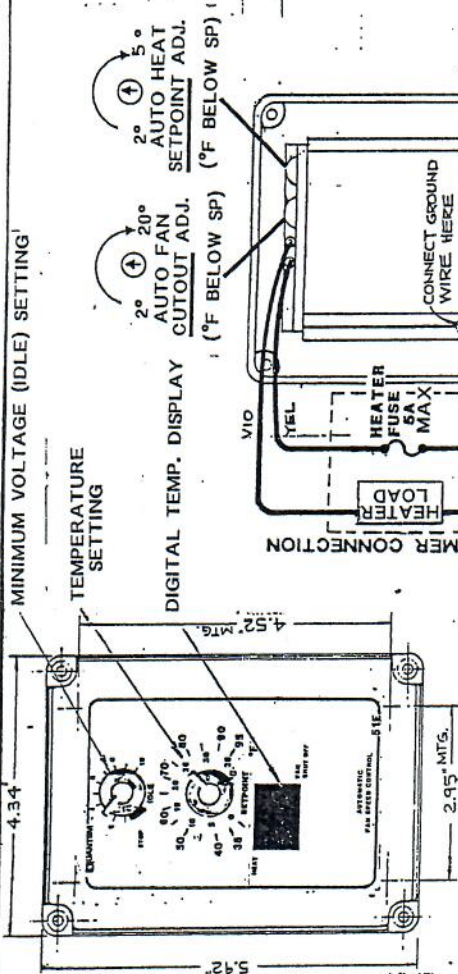
NOTE: A Heater interlock output is provided (externally) adjustable from 0°F to 5°F below setpoint. Output #21.

AUTO HEAT ON: Relay 2.5A @ 250VAC, resistive.

NOTE: Factory preset @ -5°F

DIGITAL DISPLAY: A digital LED display of room temperature. °C or °F field selectable.

NOTE: Factory set at °C.



QUANTUM CORPORATION
TRENTON, NEW JERSEY

TITLE: AUTOMATIC FAN SPEED CONTROL

REV. 51-E54-L420

REF: WALL MOUNT WATERTIGHT DUST RESISTANT

DWG. NO. **51-E54-L420**

SCALE: **AS SHOWN**

DATE: **11-25-92**

APPROVED: *[Signature]*

DESIGN: **EDS**

REVISED: **ECO 2030**

THIRD ANGLE PROJ. **B**

DIMENSIONS ARE IN INCHES - TOLERANCES ARE: DECIMALS .XX ±.03 - XX ±.008 ANGLES ±1°

8-10

REVISION NO. 44118