Suggested Specification

Auto-changeover Plenum Slot Diffuser

Model: EOS / EOS-NT /EOSI / EOSI-NT

Plenum slot diffusers shall be TITUS Model EOS (uninsulated) or EOSI (insulated) for supply. Units to be applied in narrow tee tegular or bolt slot applications shall be TITUS Model EOS-NT (uninsulated) or EOSI-NT (insulated) for supply. Diffusers shall be of the sizes and mounting type shown on the plans and outlet schedule. Diffusers shall have 2-inch wide slot and nominal lengths shall be 2 or 4 feet. Unit casing shall be constructed of 24-gauge steel and pattern controller blade constructed of extruded aluminum. The standard finish shall be black on the face of the diffuser and the pattern controller. Optional white ceiling T-Bars shall be a factory mounted option (EOS and EOSI only).

The supply diffusers shall have a single inlet and single discharge slot that uses a vertically-oriented extruded aluminum pattern controller with a tight sealing gasket at the top of the blade which seals against the inside plenum wall and provides full horizontal airflow in cooling mode or vertical airflow in heating mode. Supply diffusers shall have an internally-mounted self-powered actuator/motor assembly controlled by printed circuit board controller with logic programming. Supply diffusers shall have a solar cell mounted on the face to collect light energy to power the electronic controls and actuator assembly to provide bi-directional airflow. Actuators using bi-metal spring assembly or thermal wax mechanism are not acceptable. Actuators shall have electronic temperature sensors that sense the supply air temperature and move the pattern controller blade to a horizontal position for cooling when supply air temperature reaches the cooling set point and to a vertical position for heating when supply air temperature reaches the heating set point. Supply diffusers shall contain dip switches to adjust the cooling and heating temperature set points. Diffuser shall be equipped with a connector port that allows for connection of a secondary unit via control cable. The control switches and interconnect cable shall be accessible from the inlet side of the plenum.

The plenum inlet must be drawn from the plenum wall to eliminate leakage. Welded-in inlets or mechanically fastened inlets are not acceptable. Inlets welded or mechanically fastened to the plenum wall are not acceptable. The inlet must have at least 1 1/8-inch depth for duct connection.

Optional external foil encapsulated insulation (model EOSI) shall be available. Factory plaster frames, and inlet dampers shall also be available as optional accessories.

The manufacturer shall provide published performance data for the plenum slot diffuser. The diffuser shall be tested in accordance with ANSI/ASHRAE Standard 70.