

Applications

Glass units can be used as windows, glass walls and panels, and glass divider walls for cubicle conditioning in the core of the building. Glass units can be integrated into windows, walls, interior partitions and other architectural products and can be installed into new construction or retrofitted into existing buildings.

Power Unit

Standard double paned insulated sealed window manufactured incorporating Pilkington TEC-15 tempered low-e safety glass (inside glass pane) and any tempered clear, tinted, patterned, opaque or other glass (outside glass pane).

Typical maximum glass size is 35 ft2. Larger sizes are available by special order. Overall unit thickness can be specified from 3/8 inches (15.875 mm) to 11/16 inches (26.9875 mm). The Glass unit uses an Edgetech™ True warm edge super spacer technology and is sealed using D-2000 reactive hot melt butyl sealant. All electrical heating components are sealed within the unit except for electric and control wires that extend from one corner of each sealed unit.

Operating Parameters

The maximum glass surface temperature is typically between 90°F and 115°F. The typical warm-up time from power off to sensible emittance is 10 minutes. Glass units can be installed in parallel or series for on-demand zoned heating. Actual power output and consumption varies with variables such as building insulation and orientation, total glass surface area and Glass area, power supplies, glass surface temperature, inside and outside temperature differences, room configuration and other heating sources.

Power Supply and Controls

Glass windows are designed to be controlled by industry standard climate controls. Power supplies or inverters (120 volt AC to 50 volt DC) sized to the Glass are required. Generally, the maximum voltage input is 50 volts DC per pane, and the maximum current input is 15 amps per pane. Typically a low-voltage Glass window operates at less than 50 volts, 4 amps, 200 watts and a 40% duty cycle. The Glass uses Class 2 wiring (AWG).

Safety Features and Standards

Glass windows incorporate a number of safety features including tempered glass, automatic glass temperature monitoring and automatic power cutoff for excessive operating temperatures or glass breakage. The Glass unit is certified by Intertek ETL - SEMKO Testing Services to Safety Standard for Sheathed Heating Elements, UL 1030 7th Edition.

Frames

Frames for Glass units are required (supplied by installer). Glass units can be integrated into windows, walls, interior partitions and other architectural products. They also can be retrofitted against the inside of existing windows.

Other Glass

Glass units can be combined with clear, tinted, patterned, opaque or other glass and may be incorporated into industry standard wood, vinyl, fiberglass, metal frames or other custom enclosures.

Installation

Glass windows shall be installed by qualified glazing contractors. Although the Class 2 wiring (AWG) may be installed by anyone, the power supply must be installed by licensed electricians according to all applicable codes.

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