



Polargy PolarPlex™ Suspended Panel System (SPS)

Product Specification: Patent 8,684,067

SECTION
27-11-16

PART 1 - GENERAL

1.1 Summary

A. Removable Hanging Vertical Panel System used for either Hot or Cold Aisle Containment (HAC/CAC).

1.2 System Description

A. The Suspended Panels System (SPS) is to consist of tool-less removable aisle containment panels supported from an overhead track. The SPS is for use above racks and for use to fill empty rack positions. The system includes corner and bottom trim pieces.

1.3 Design Requirements

A. Suspended Panels shall be vertically hanging containment panels that install and remove from a support track without tools.

B. When used for containment above racks the SPS shall have the capability to remove 1 or more equipment racks from the continuous row without removal of the Suspended Panels to allow the entire exchange of a fully loaded equipment rack.

C. When used for containment of empty rack spaces the SPS shall have the ability to seal off an entire row of empty rack positions with only an overhead support and no floor support.

D. Suspended Panels shall be twin-wall polycarbonate retained in an aluminum hook channel. Twinwall material shall be Class A fire-rated material.

E. Prefabrication of components in order to speed installation.

F. Structural loads for cable and power pathways/trays, communication cables and power cables/busways, and light fixture are not to be supported from the SPS.



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1.4 Warranty

A. SPS shall be warranted against defects in materials and workmanship for a one-year period for the first 12 months after initial start-up or 18 months after ship date, whichever occurs first.

PART 2 - PRODUCTS

2.1 Manufacturers

A. Basis of Design: Product specified is the PolarPlex™ Suspended Panel System as manufactured by Polargy, Inc.

B. Substitutions: Proposed substitutions must be approved prior to bidding.

2.2 General

A. The Suspended Panel System (SPS) includes hanging containment panels supported from the ceiling or other structure and independent of the equipment racks and floor. Vertical panels can be installed and removed without tools.

2.3 Structure

A. The SPS shall form an above rack plenum that consists of a series of hanging panels that are aluminum trimmed at the top and hold 8mm thick twinwall pieces. Panels hook onto a support track installed at the ceiling.

B. Suspended Panels shall be tool-less for installation and removal and hang vertically, in a plumb position.

C. There shall be a continuous surface connection between support track and suspended panels to maintain a continuous containment seal.

D. The support track shall incorporate splicing mechanisms with both straight and right angle connections in order to align and support the track.



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E. Bottom trim pieces shall be available to capture and align the bottom of the suspended panels and shall accommodate 3" of total vertical movement (2" downward, 1" upward) at the interface between the SPS and the top of the equipment racks or floor. Bottom trim pieces shall be attached to the tops of equipment racks or floor with either hardware or 3M Dual Lock.

PART 3 – EXECUTION

3.1 Preparation

A. Ceiling structure for supporting the Suspended Panel System will be by others and shall be structurally engineered to support the weight of the system.

B. Coordinate sequence of installation with owner and other trades.

C. Assure ceiling height is within allowable tolerances prior to start of installation.

3.2 Installation

A. Install SPS vertical panels in accordance with manufacturer's shop drawings and written instructions.

B. Fill and seal miscellaneous gaps with air dam foam or air dam barriers.

C. Installers shall provide appropriate installation hardware as defined by local code or the authority having jurisdiction (AHJ).

3.3 Adjusting and Cleaning

A. Clean entire SPS assembly with mild soap and water solution.