

Polaris-S Product Features

Description

The Frenger Polaris-S unit is an active chilled beam designed to deliver cooling and fresh supply air from the perimeter of the building. It is ideally suited for integration within a plasterboard ceiling system, and can also be integrated into metal and mineral fibre perimeter details.

Polaris-S uses a supply of fresh ventilation air to draw warm room air to the unit's vertically mounted cooling batteries. This warmer room air is cooled as it passes through the finned tube cooling battery, which comprises aluminium fins with copper channels through which cool water passes. The heat of the room is taken in through the aluminium fins, and transferred into the water circuit through the copper tube and on to a central chiller.

Conditioned air is then quietly reintroduced into the room from one side of the unit, entraining to the ceiling rather than being dumped directly below the beam. When installed around the perimeter of a building, the units can deliver fresh conditioned air up to 7m into the building floorplate in a comfortable and quiet manner.

Standard Features

- cooling
- fresh air
- air supply rate up to 17 l/s/m
- all recirculated air is contained within the product casing

Optional Features

- heating
- Drypac™ condensation protection
- condensation sensors
- return air temperature sensors
- integrated control valves

Dimensions

length: modules from 1.2m up to 3.6m

width: 292mm and 592mm

air connections: 1x100mm DIA

water connections: 15mm OD

weight (dry): 11.5 kg/m

water content: 0.65 kg/m

Connection Possibilities

water: horizontal same end

air: horizontal, same or opposite end to water connection

Performance

cooling: 320 watts per linear metre at 17 l/s/m fresh air supply and 10dtK (difference between mean water temperature and room temperature).

heating: 575 watts per linear metre at 17 l/s/m fresh air supply and 30dtK.

Maintenance

The unit has no moving parts, and therefore maintenance requirement is limited to periodic cleaning of the finned tube batteries. All sides of the batteries can be accessed from below via the removable perforated faceplate.

Installation.

Beams are designed to be supported by 2 or 3 sets of threaded rod hangers, dependant on product length

