

COLD POOL SYSTEM FOR DATA CENTER

Application

Mainly applied in Finance, Securities and Data Centre, etc.



COLD POOL SYSTEM

Features

- ▶ Surface finish: degreasing, pickling, phosphoric, powder coating. The thickness of powder coating is 80µm-100µm, complying with ROHS.
- ▶ By adopting heavy duty nylon silent pulley and aluminum alloy hanger rail, the sliding door can be opened and closed easily. And the locks on the door are convenient for people managing the cold pool channel.
- ▶ The material of sliding door is double-deck cold-rolled sheet metal which make sure a good intensity of the door; And the middle of the door is made up of clear tempering glass which allow the outside people checking the situation of inside channel.
- ▶ The support beam on the top of cold pool channel is used for placing tempering glass. The thickness of the support beam is 1.5mm.

Materials

Cold-rolled steel sheet.
Thickness for hanger rail 2.0 mm, support beam 1.5mm, sliding door 1.2 mm. Heavy duty nylon silent pulley.

Standard

Comply with ANSI/EIARS-310-D, DIN41491; PART1, IEC297-2, DIN41494; PART7, GB/T3047.2-92 standard.
Compatible with metric ETSI and 19 inch international standard.

COLD POOL SYSTEM FOR DATA CENTER



Heavy duty nylon silent pulley



Aluminum alloy hanger rail

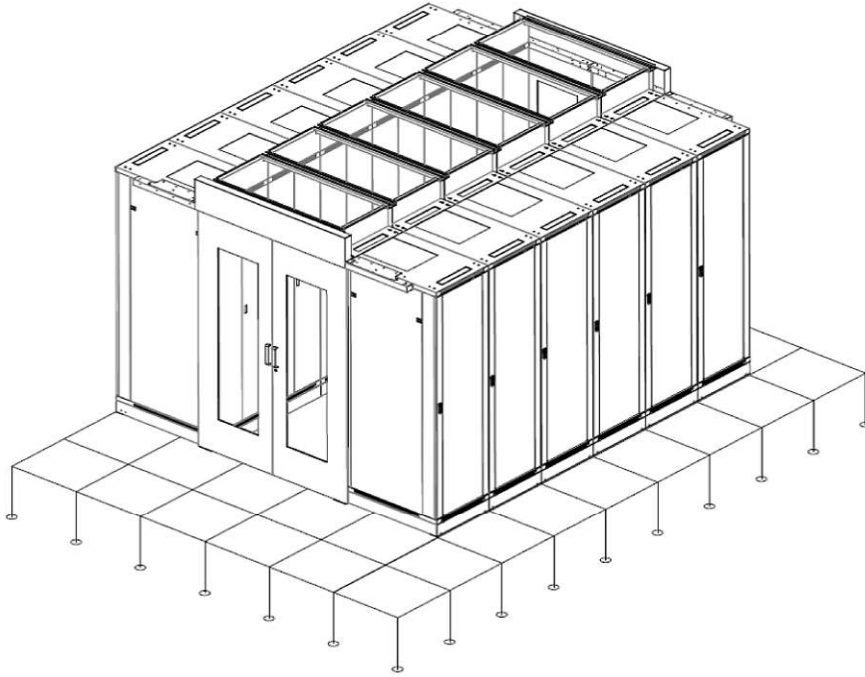


Support beam for cold pool channel



Cold pool sliding door

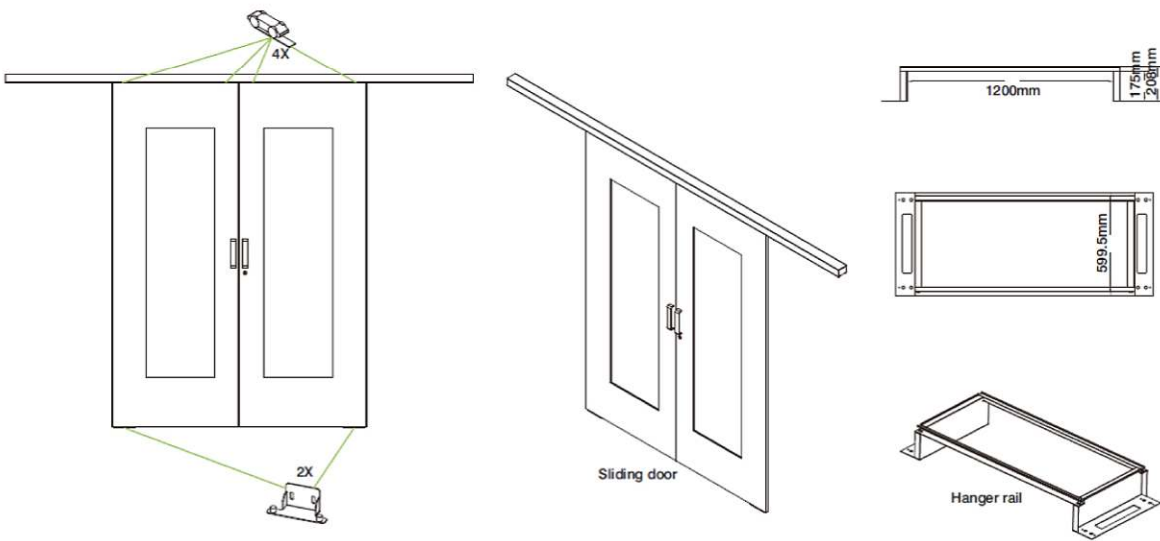
STRUCTURAL



STRUCTURAL & DIMENSION

DIMENSION (MM)

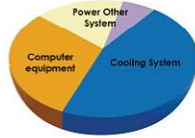
mm Unit of Measurement:mm



Principle of Cold Pool

Previous Situation of Server Room

Total Energy Consumption: 100%
 Air-container: 45%
 Computer equipment: 30%
 UPS: 18%
 Others: 7%



Previous Problems Of Server Room

Local overheating in server room.
 Large energy consumption
 consumption rate: PUE>2.5

$$PUE = \frac{\text{Total energy consumption}}{\text{IT energy consumption}}$$

Cooling Solution For Server Room

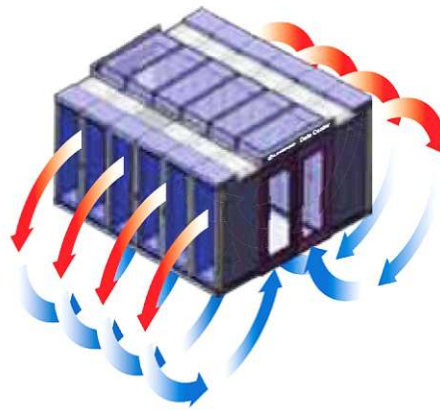
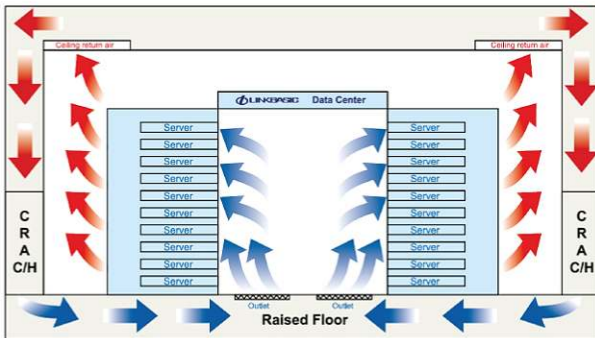
How to reduce energy waste? The cold air should be avoid exchanging with the effluent hot air as soon as possible during the process of facility cooling. So the cold and heat channel should be build to make sure that the cold air in the cold channel will not exchange with the hot air before it passing the facilities.

Cold Pool System is the best among the present data center consumption reducing solutions.

Schematic Diagram of Cold Pool

→ = Hot air → = Cold air

Section View of Cold Pool



PRINCIPLE OF COLD POOL

Order Information

Part No	Description	Applications
CS-NCH01-612	Standard 600X1200 cold pool glass roof and mounting bracket	Tempered glass top
CS-NCH01-812	Standard 800X1200 cold pool glass roof and mounting bracket	Tempered glass top
CS-NCH02-42U6	Standard 42U600 wide sliding door cold pool	Contains installation components and two sliding doors
CS-NCH02-47U6	Standard 42U600 wide sliding door cold pool	Contains installation components and two sliding doors

COLOR

A	B
A Black(RAL9004)	B Gray(RAL7044)