DTC AIR COOLING SYSTEM

STANDARIZATION

- 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

FEATURE

- 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;
  1. Sliding door is double-deck cold-rolled sheet metal which make sure a good intensity of the door
  2. And the middle of the door is made up of clear tempering glass which allow the outside people checking the situation of inside channel
  3. 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
  4. Automatic / Manual Door, Automatic / Manual Roof Top, Temperature Sensor, Fire Sensor and Alarm
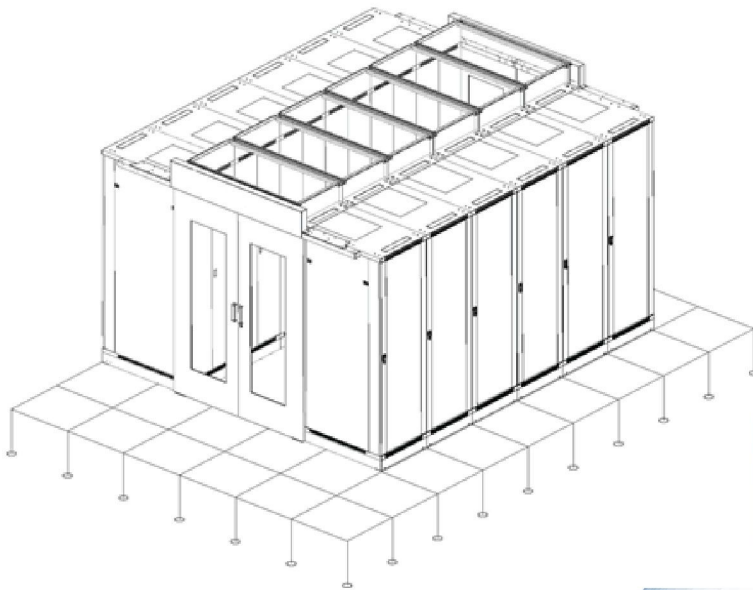
MATERIAL

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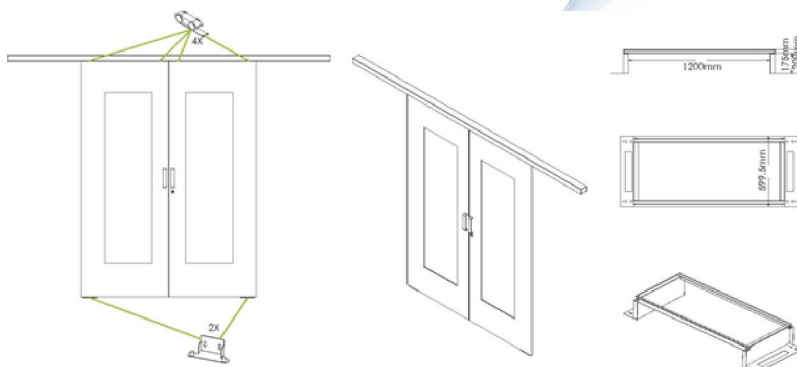
- Heavy duty nylon silent pulley

APPLICATION

- Widely applied in Finance, Securities and Data Centre and adapted by professional servers network providers, as IBM, SUN, HP, COMPAQ, DELL, etc

STRUCTURAL

DIMENSION

PRINCIPLE OF COLD POOL

1. Previous situation of Server Room
   Total Energy Consumption   : 100%
   Air-container   : 45%
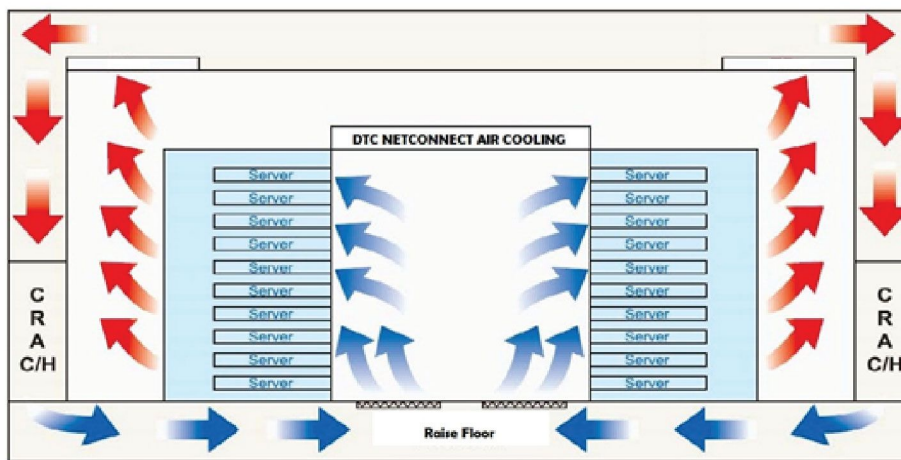   Computer equipment   : 30%
   UPS   : 18%
   Others   : 7%

2. Previous problem of Server Room
   Local overheating in server room.
   Large energy consumption
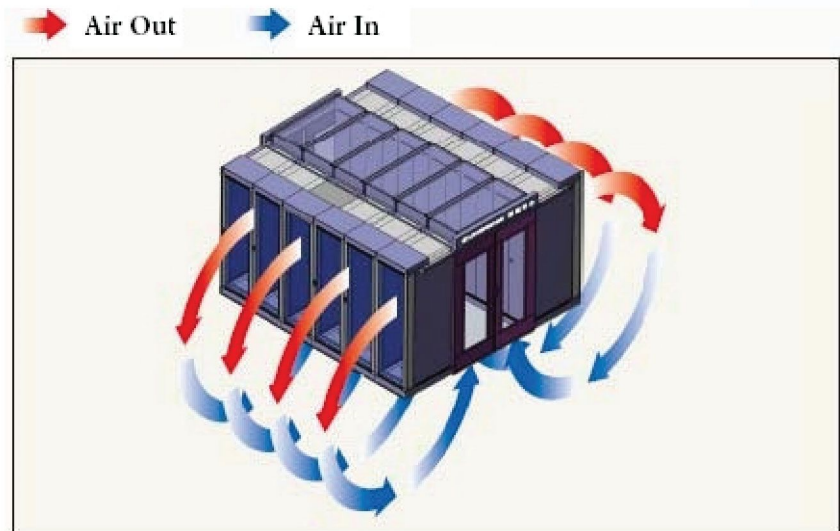   Consumption rate : PUE > 2.5

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

3. Section View of Cold Pool

4. Schematic diagram of Cold Pool

Air Out   **Air In**

5. 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.