

ABSTRACT

The present disclosure provides a cooling system for a data center system and a data center system. The air mixing cavity and the hot air returning layer are in communication with each other through an air returning vent and are disposed at the same level; the air supply cavity and the cold pool layer are in communication with each other through an air supply vent and are disposed at the same level; the lower air supply cavity formed between the cooling system and the machine room flows to the cold pool layer, the cold pool layer flows to the hot air returning layer from bottom to top, and the upper hot air returning layer flows to the air mixing cavity, circulating cooling system in which the air mixing cavity exchanges heat and cools on the indoor return air and then flows from top to bottom to the air supply cavity, makes full use of the air automatic convection mode of cold air naturally sinking and hot air naturally rising to achieve airflow circulation, reducing the mixing of cold and hot air and improving refrigeration efficiency and recycling using of energy. A diffusion type air supply end is disposed on the air supply vent, so that the cold air diffuses to the whole cold pool layer in a diffusion manner, solving the negative pressure problem caused by excessive wind speed of the machine cabinets at the near end of the air supply vent and the problem of insufficient cooling air volume of the machine cabinets at the far end of the air supply vent. (Fig. 1)