

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2024/0215199 A1 ZHANG et al.

Jun. 27, 2024 (43) **Pub. Date:** 

### (54) LIQUID-COOLED CABINET AND DATA CENTER COMPUTER ROOM

(71) Applicant: Hebei Qinhuai Data Co., Limited., Zhangjiakou City (CN)

Inventors: Binghua ZHANG, Zhangjiakou City

(CN); Mingjiang LI, Zhangjiakou City (CN); Jinquan AN, Zhangjiakou City

(CN)

(21) Appl. No.: 18/538,781

(22)Filed: Dec. 13, 2023

(30)Foreign Application Priority Data

Dec. 22, 2022 (CN) ...... 202211657804.X

#### **Publication Classification**

(51) Int. Cl. H05K 7/20 (2006.01)H05K 7/14 (2006.01) (52) U.S. Cl.

CPC ...... H05K 7/20272 (2013.01); H05K 7/1497 (2013.01); H05K 7/20236 (2013.01)

#### (57)ABSTRACT

A liquid-cooled cabinet and a data center computer room are disclosed. The liquid-cooled cabinet includes an inner liner having an open accommodation chamber internally provided with a flow equalizing plate, a coolant cavity is formed between the flow equalizing plate and a bottom surface of the accommodation chamber, and the flow equalizing plate is provided with multiple rows of first through-holes. A drainage portion is arranged on a bottom of the first sidewall and a bottom of the second sidewall, and a splitter cavity is arranged below the drainage portion, where a top surface of the splitter cavity is flush with the flow equalizing plate, and the liquid inlet leads to the drainage portion. A liquid outlet is also arranged on the first sidewall and the second sidewall. The liquid-cooled cabinet also includes a top cap that fits in size to an opening of the accommodation chamber.

