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(54) Title: IMMERSION-TYPE LIQUID-COOLING DEVICE AND IMMERSION-TYPE LIQUID-COOLING SYSTEM

(54) 发明名称: 浸没式液冷设备和浸没式液冷系统

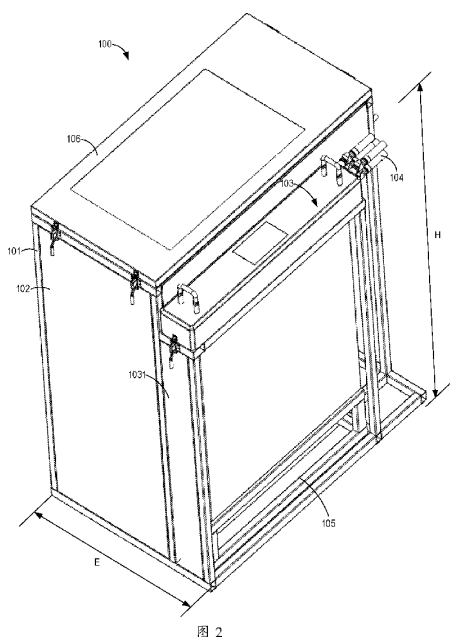


图 2

(57) Abstract: Provided in the embodiments of the present disclosure are an immersion-type liquid-cooling device and an immersion-type liquid-cooling system. The immersion-type liquid-cooling device comprises: a cooling tank, which is adapted to accommodate a main cooling liquid in a sealed manner, so as to immerse, in the main cooling liquid, an electronic device needing to be cooled; a main heat dissipation apparatus, which is attached to the cooling tank, and comprises an inner cavity enclosed by a housing, and a main circulating component and heat exchanger accommodated in the inner cavity, wherein the inner cavity is in communication with the

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cooling tank in a sealed manner, and the main circulating component is adapted to circulate the main cooling liquid between the cooling tank and the exterior of the heat exchanger; and a cold source interface, which is coupled to the main heat dissipation apparatus, and is configured to allow an auxiliary cooling liquid to circulate between an external cold source and the interior of the heat exchanger, such that the auxiliary cooling liquid exchanges heat with the main cooling liquid at the heat exchanger. By using a modular liquid-cooling device, the deployment of a liquid-cooling system of a data center is significantly simplified, and the deployment of the liquid-cooling system is more flexible, thereby significantly improving the deployment efficiency.

(57) 摘要: 本公开的实施例提供一种浸没式液冷设备和浸没式液冷系统。浸没式液冷设备包括: 冷却槽, 并且适于密封地接纳主冷却液以将需要冷却的电子设备浸没在主冷却液中; 主散热装置, 附接至所述冷却槽并且包括由壳体围成的内腔以及被接纳在内腔中的主循环部件和热交换器, 内腔密封地连通至冷却槽, 主循环部件适于使主冷却液在冷却槽和热交换器外部之间循环; 以及冷源接口, 耦合至主散热装置, 并且布置为允许辅助冷却液在外部冷源和热交换器内部循环, 来使得辅助冷却液与主冷却液在热交换器处交换热量。通过采用模块化液冷设备, 显著简化了数据中心的液冷系统的部署, 并且使得液冷系统的部署更加灵活, 并显著提高部署效率。