TITLE OF INVENTION: [A DETACHABLE HEATING APPARATUS WITH A MULTI CIRCUIT DESIGN AND A HEATING CONTROL METHOD AND SYSTEM THEREFOR]

ABSTRACT

The present invention discloses a detachable heating apparatus comprising a chamber housing a computing unit that performs intensive computational tasks and generates waste heat. A heat exchange unit with two circuits facilitates heat transfer from the computing unit to a liquid tank. The first circuit circulates a heat transfer fluid to absorb waste heat from the computing unit, while the second circuit circulates a utility liquid to exchange heat with the heat transfer fluid. The computing unit can be a bitcoin miner, a cryptocurrency miner, server-grade CPU, TPU or AI-related unit, and is designed to be removable and network-connected. The heating system can further comprise a temperature monitoring module and operation control module to adjust heating based on liquid temperature, and a mode switch module to control liquid flow and heating source activation. The present invention is particularly suited for the flexible and convenient integration of the detachable heating apparatus with a liquid tank, effectively providing an additional heating source to conventional liquid heaters while synergistically coordinating computational operations with liquid heating.

[Fig. 1]