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(12) **United States Patent**
Eriksen

(10) **Patent No.:** **US 8,240,362 B2**
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- (54) **COOLING SYSTEM FOR A COMPUTER SYSTEM**
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- (73) Assignee: **Asetek A/S**, Brønderslev (DK)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 81 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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F28F 7/00 (2006.01)
H05K 7/20 (2006.01)

(52) **U.S. Cl.** **165/80.4**; 165/104.33; 361/699

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See application file for complete search history.

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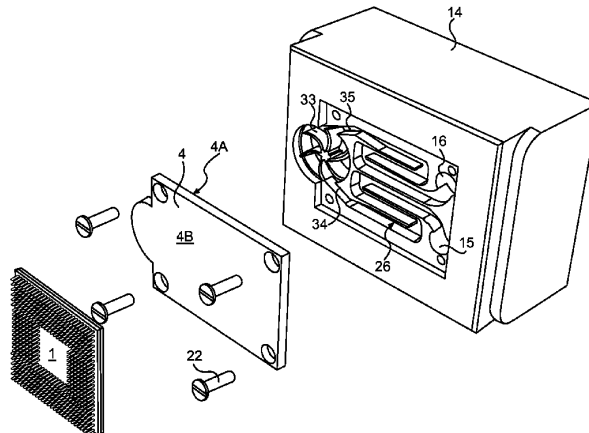
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(57) **ABSTRACT**

The invention relates to a cooling system for a computer system, said computer system comprising at least one unit such as a central processing unit (CPU) generating thermal energy and said cooling system intended for cooling the at least one processing unit and comprising a reservoir having an amount of cooling liquid, said cooling liquid intended for accumulating and transferring of thermal energy dissipated from the processing unit to the cooling liquid. The cooling system has a heat exchanging interface for providing thermal contact between the processing unit and the cooling liquid for dissipating heat from the processing unit to the cooling liquid. Different embodiments of the heat exchanging system as well as means for establishing and controlling a flow of cooling liquid and a cooling strategy constitutes the invention of the cooling system.

19 Claims, 14 Drawing Sheets



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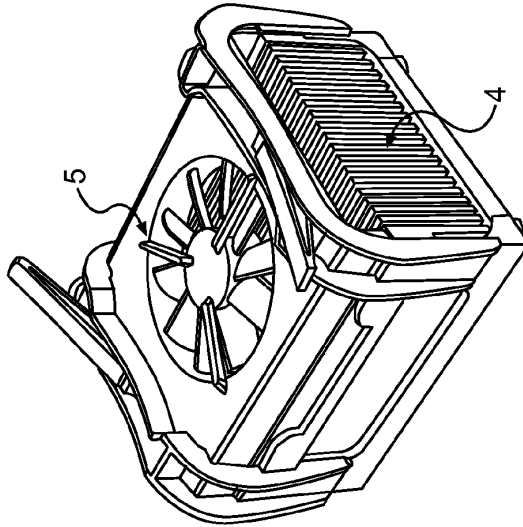


FIG. 2
PRIOR ART

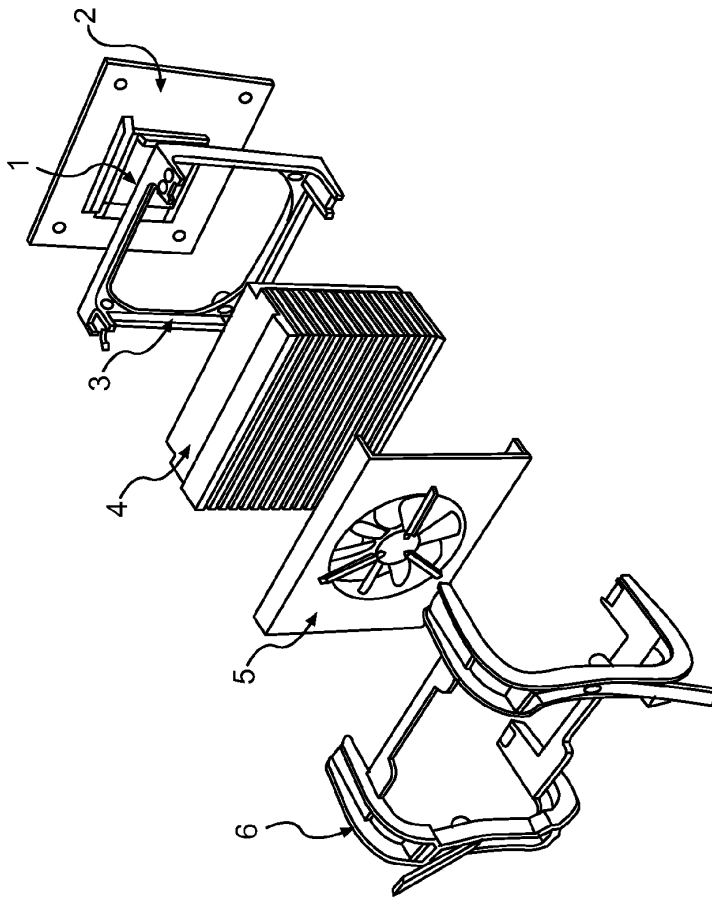


FIG. 1
PRIOR ART

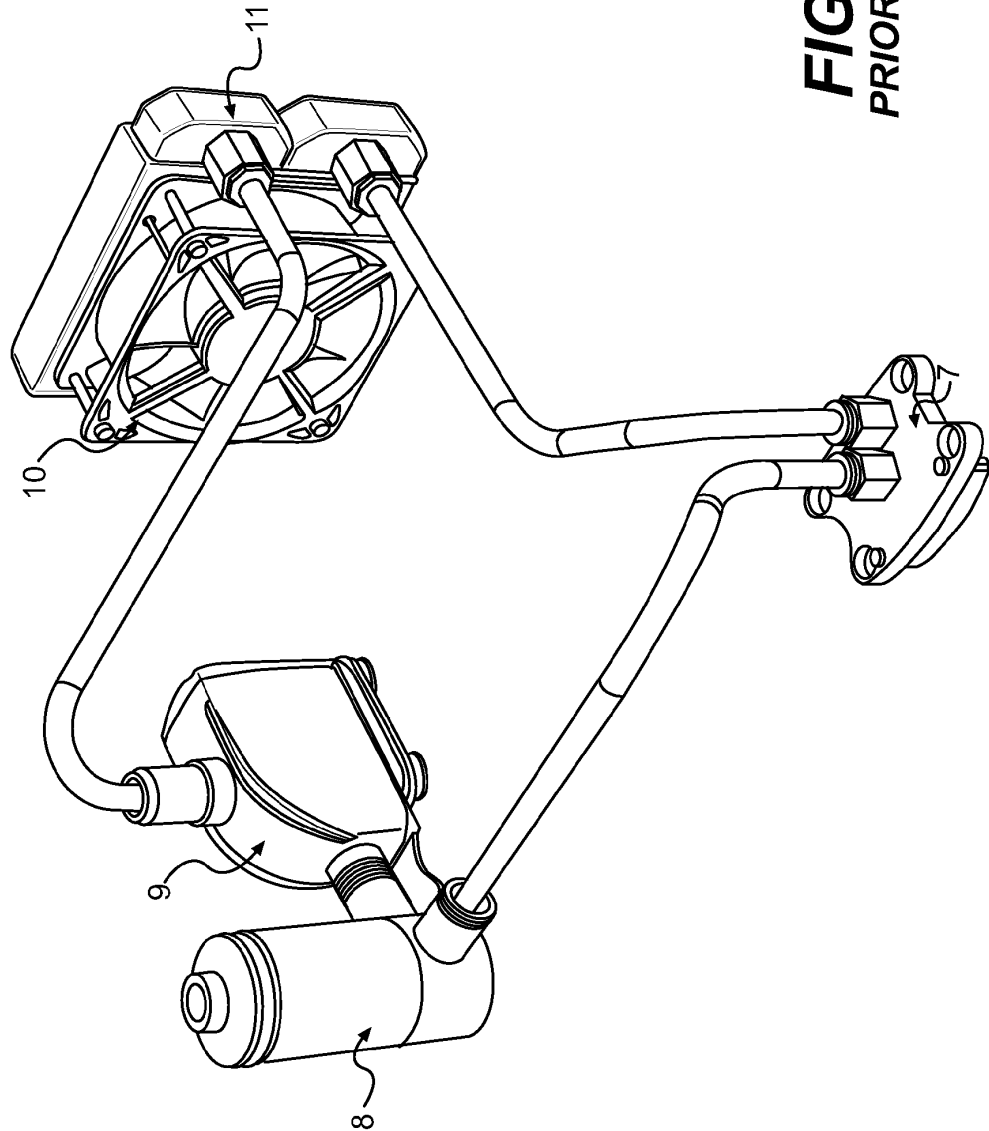


FIG. 3
PRIOR ART

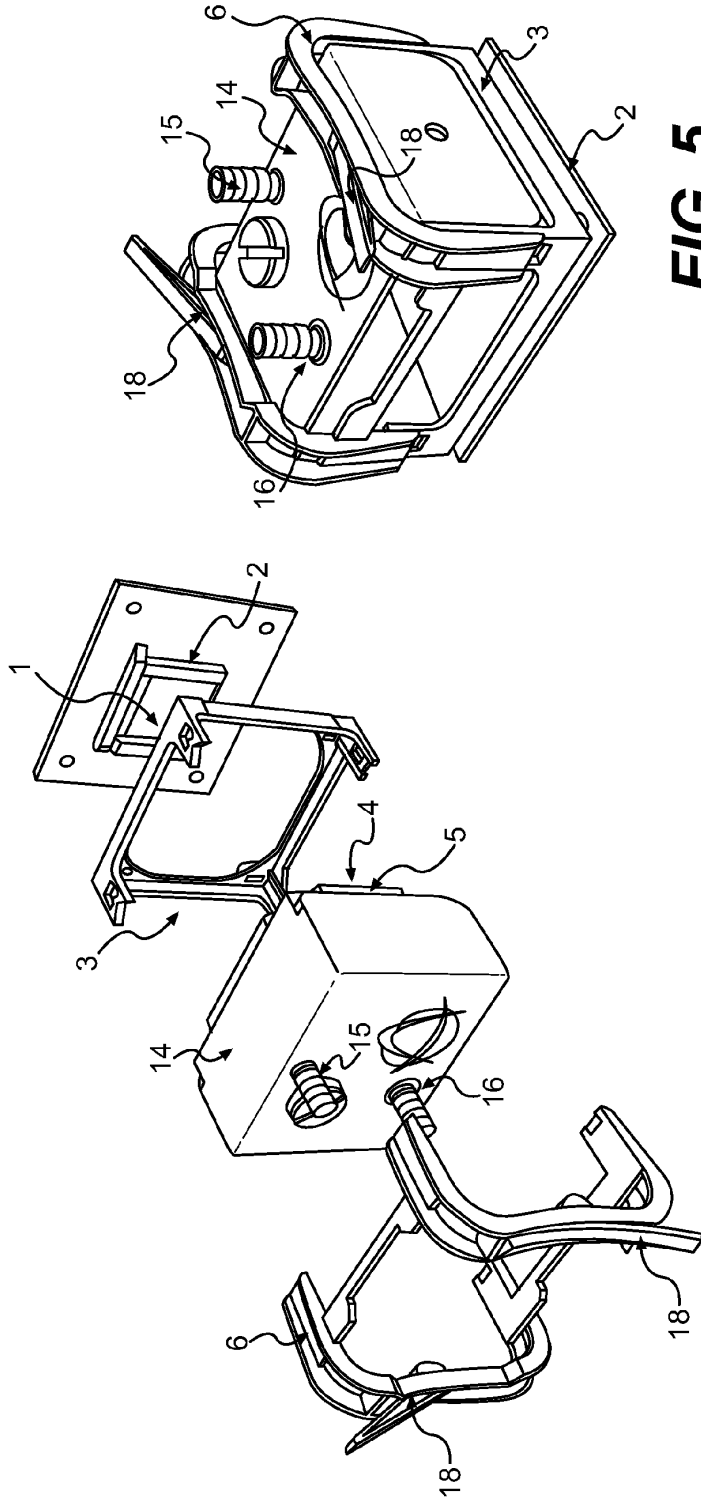


FIG. 5

FIG. 4

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