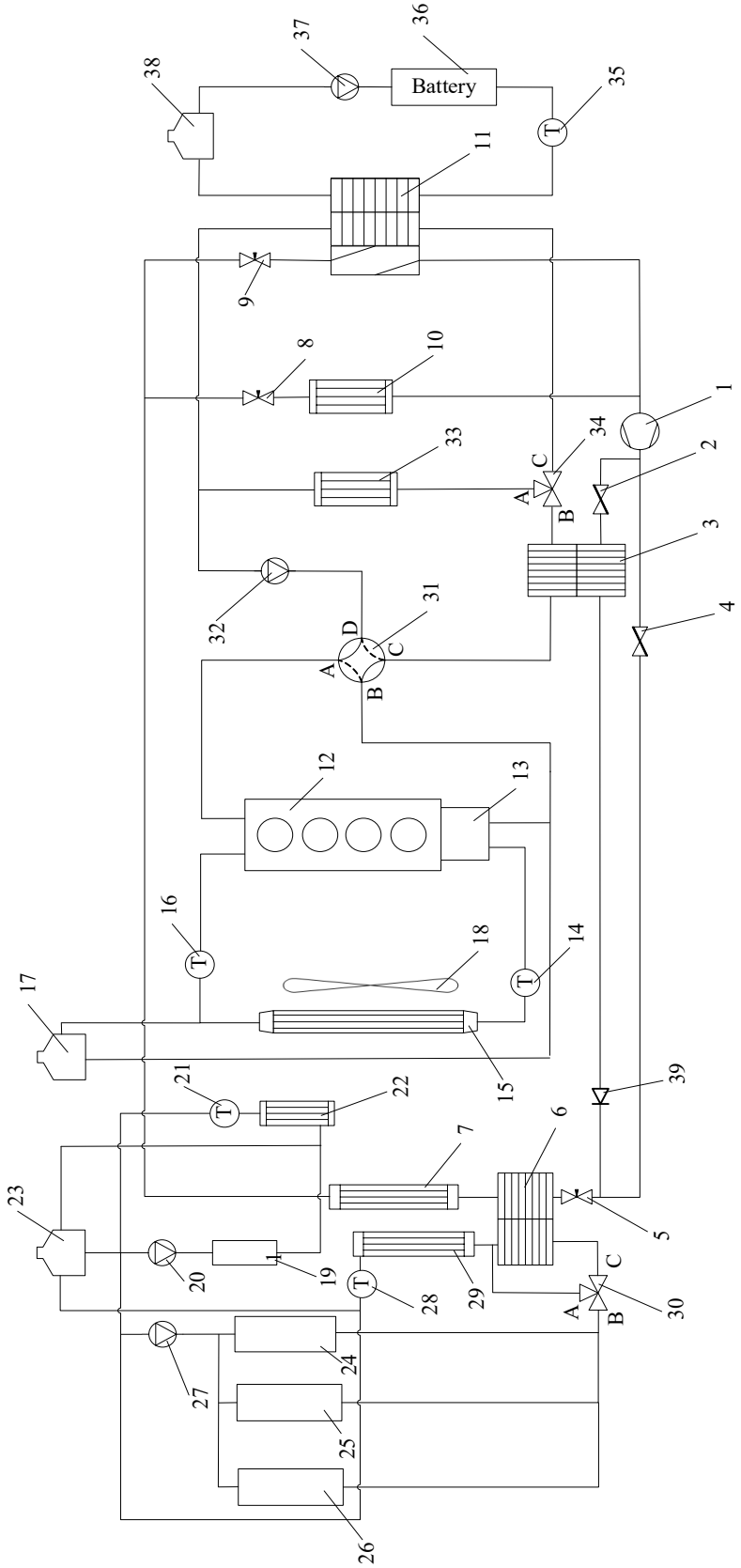


FIG. 1

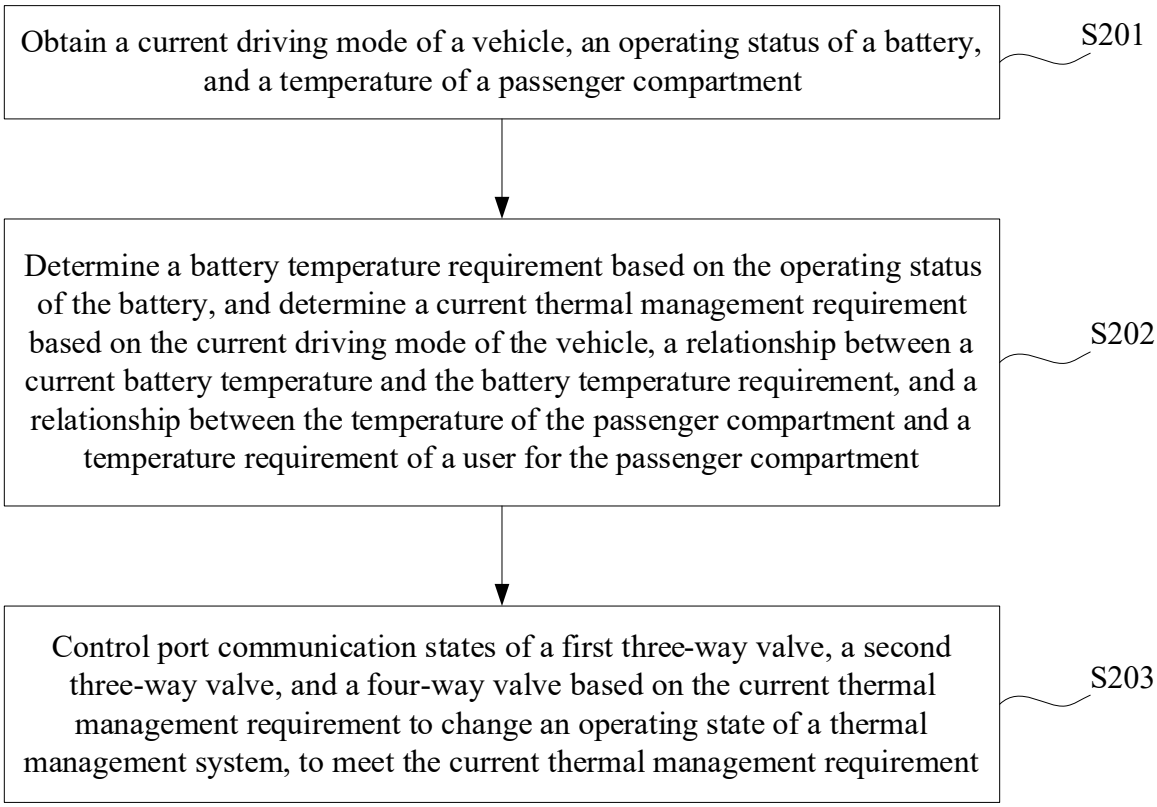

Obtain a current driving mode of a vehicle, an operating status of a battery, and a temperature of a passenger compartment
S201
Determine a battery temperature requirement based on the operating status of the battery, and determine a current thermal management requirement based on the current driving mode of the vehicle, a relationship between a current battery temperature and the battery temperature requirement, and a relationship between the temperature of the passenger compartment and a temperature requirement of a user for the passenger compartment
S202
Control port communication states of a first three-way valve, a second three-way valve, and a four-way valve based on the current thermal management requirement to change an operating state of a thermal management system, to meet the current thermal management requirement
S203

FIG. 2

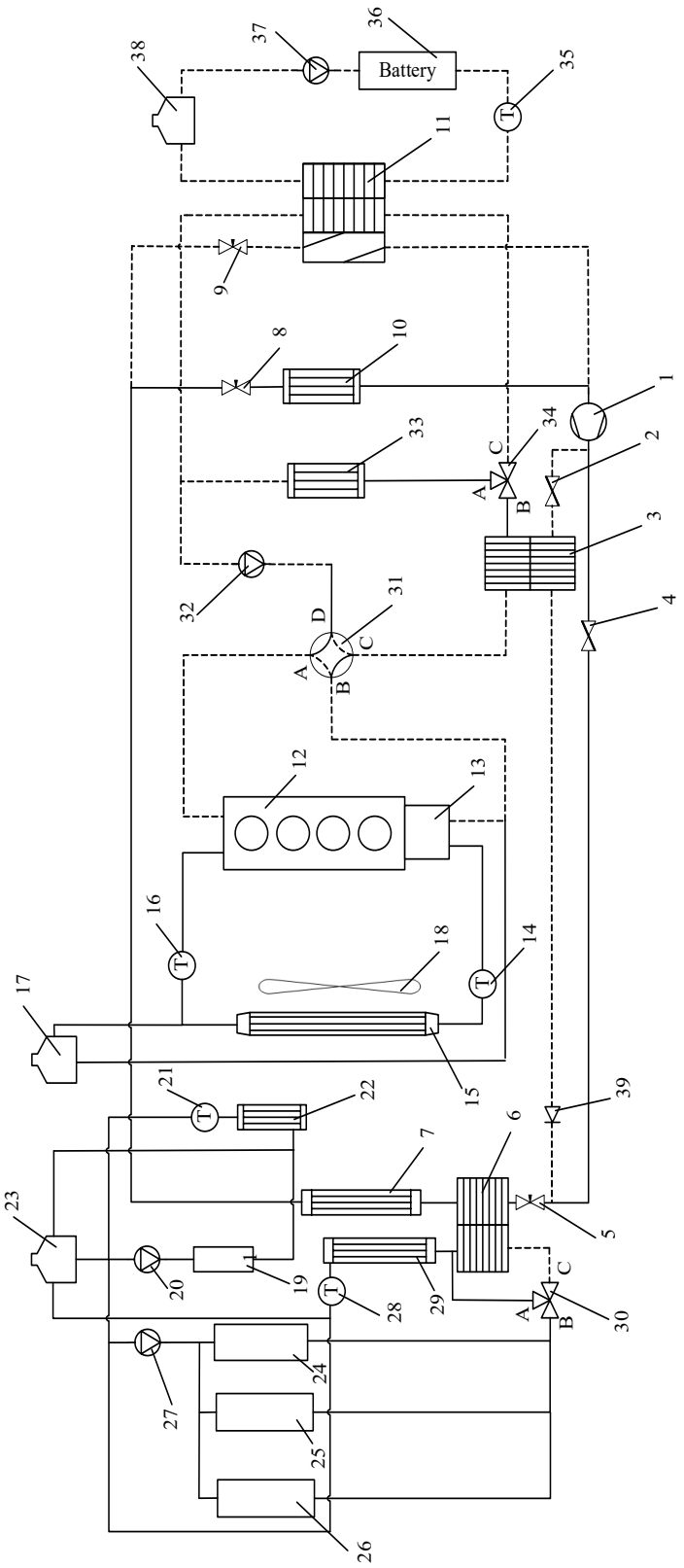


FIG. 3

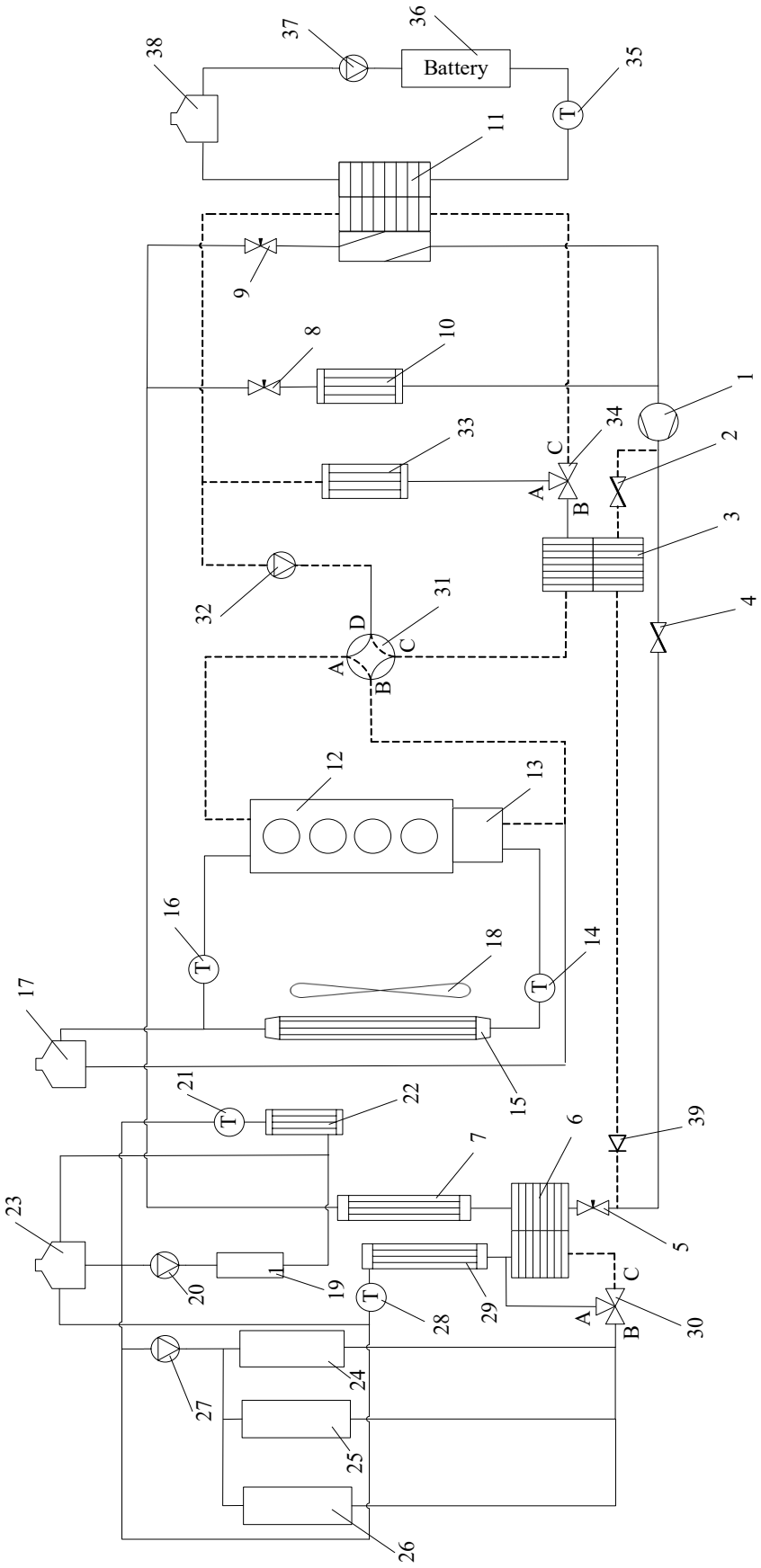

Battery
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
A
B
C
D
T

FIG. 4

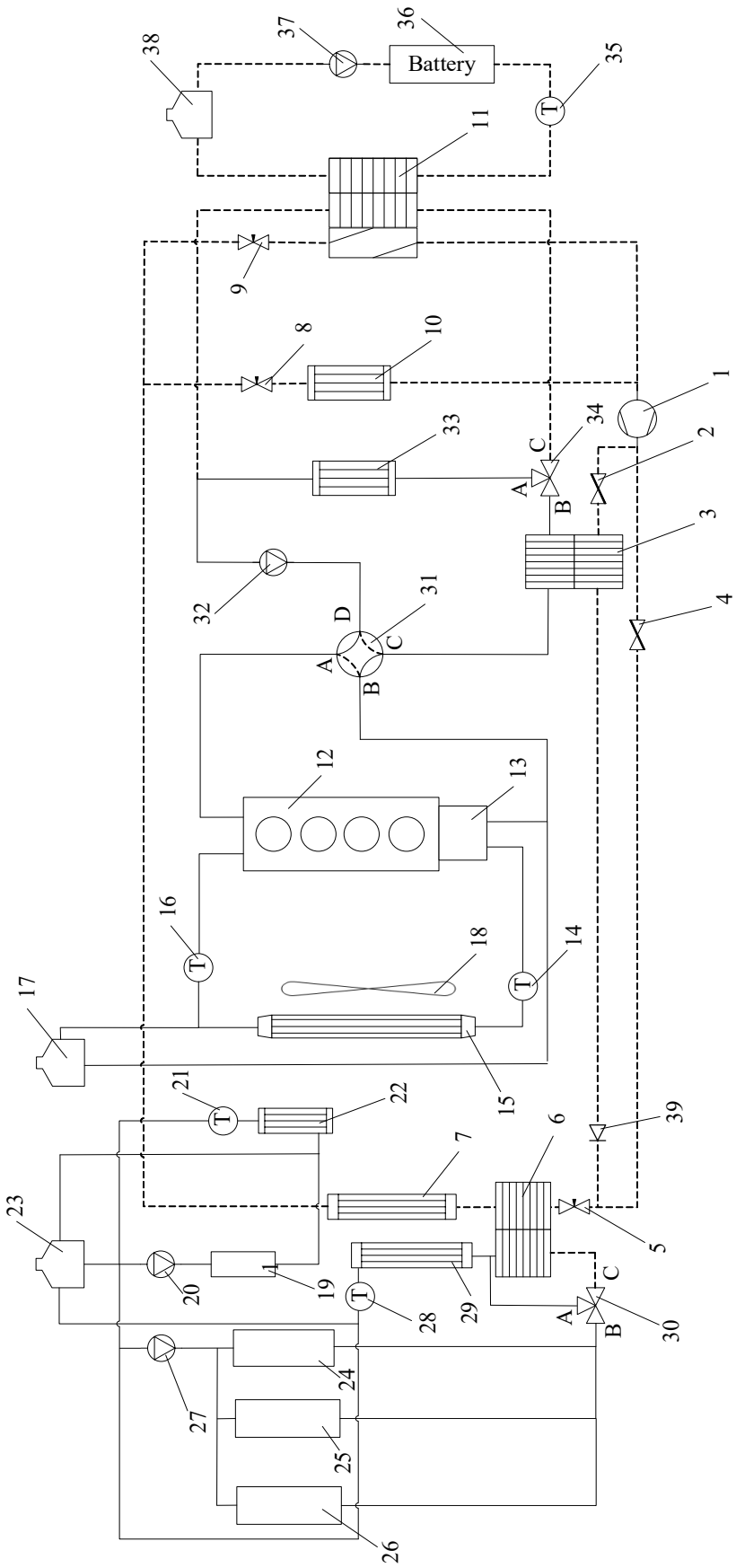


FIG. 5

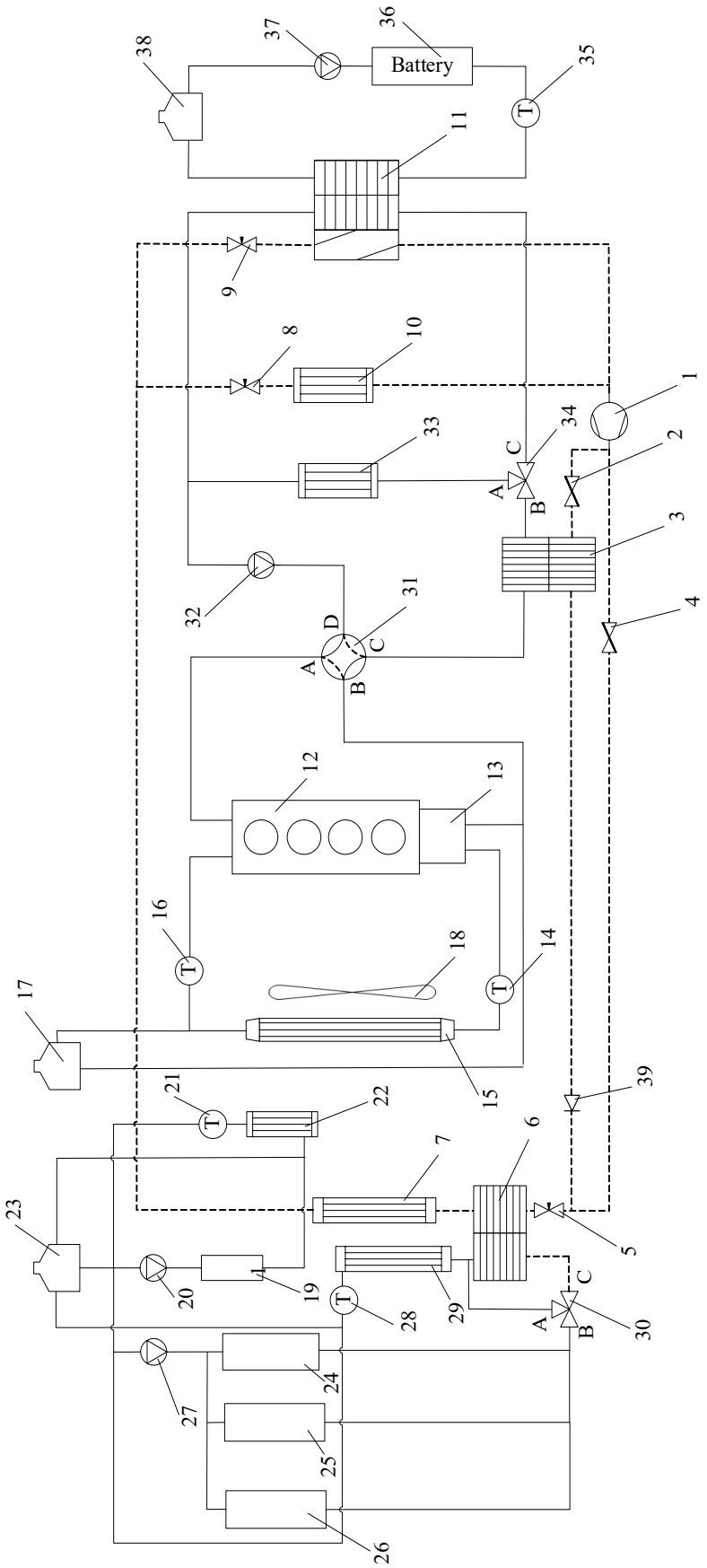


FIG. 6

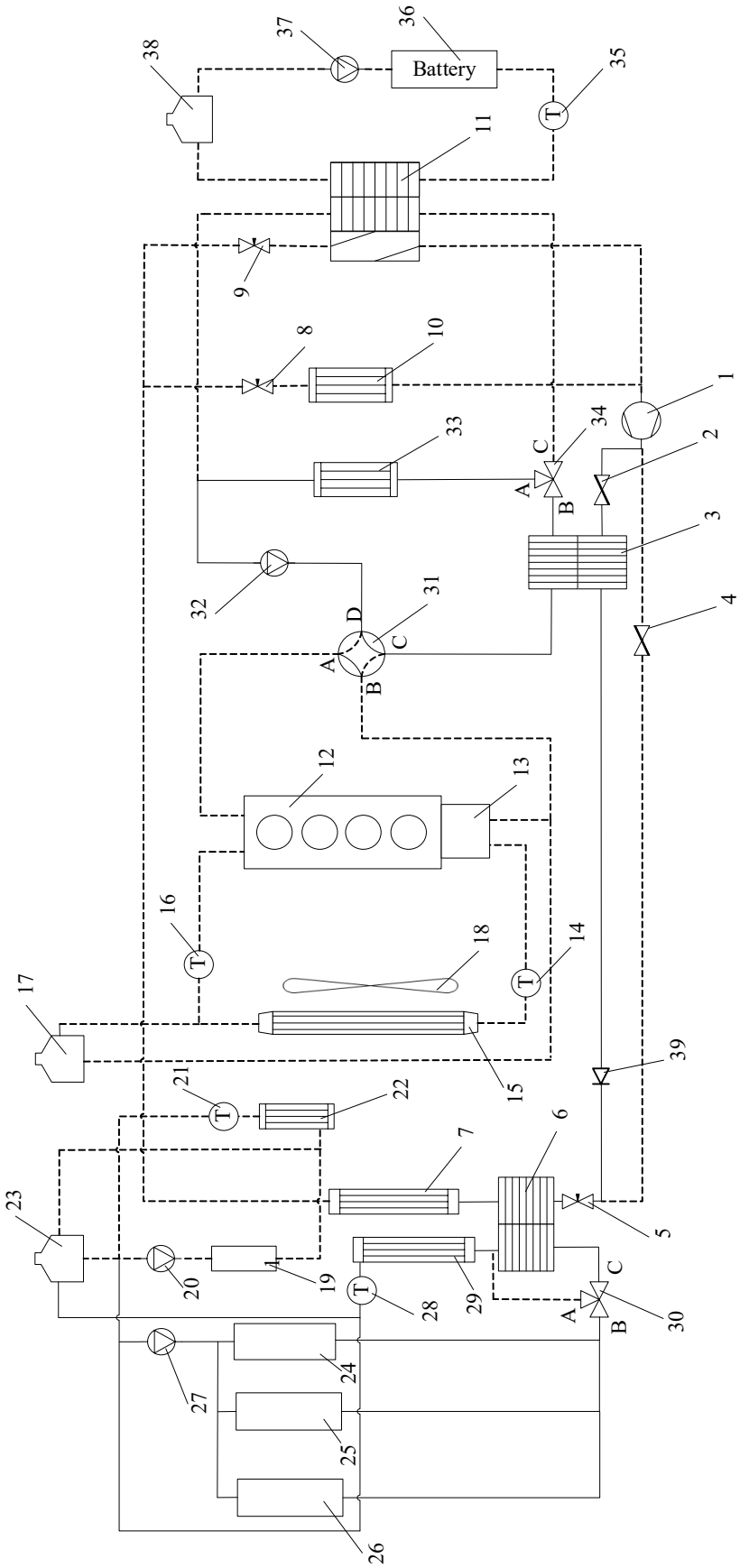


FIG. 7

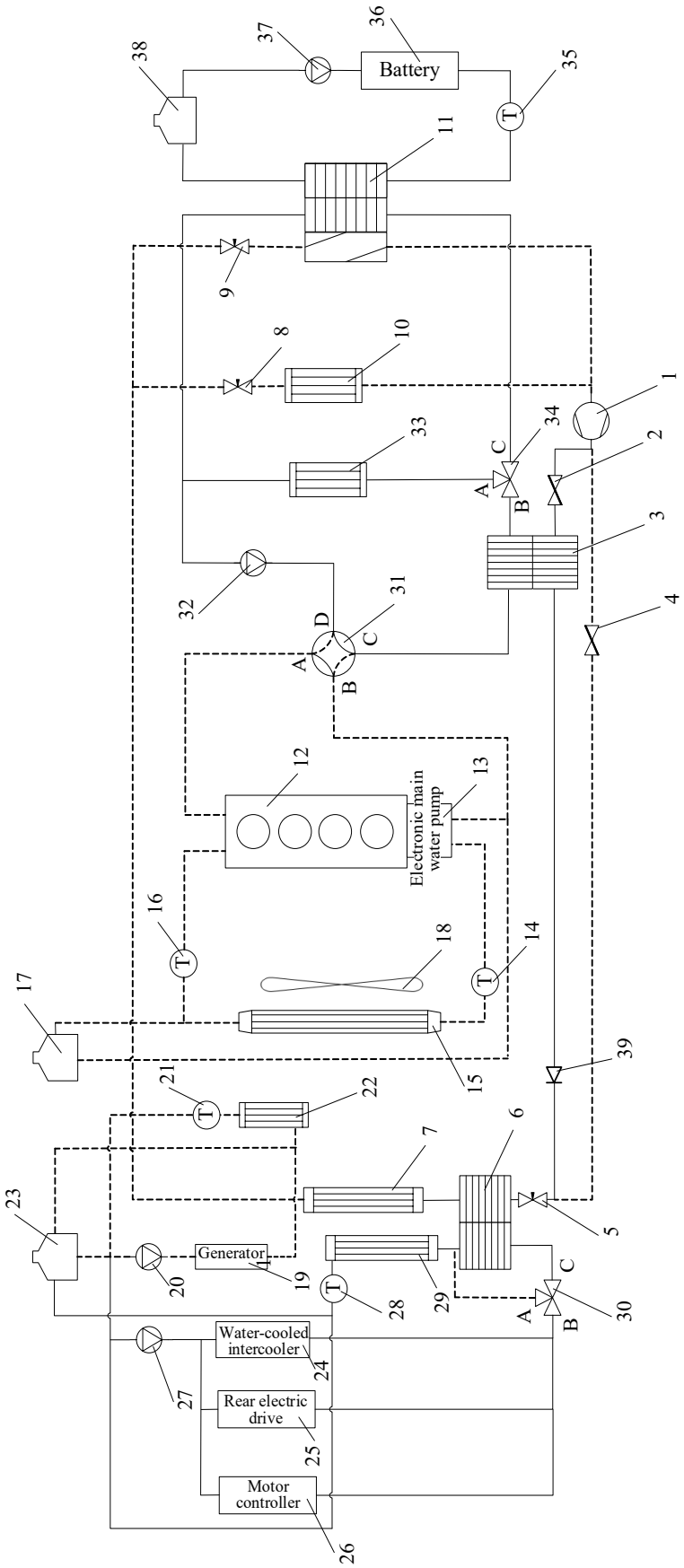

Battery
Electronic main water pump
Generator
Water-cooled intercooler
Rear electric drive
Motor controller
A
B
C
D
T

FIG. 8

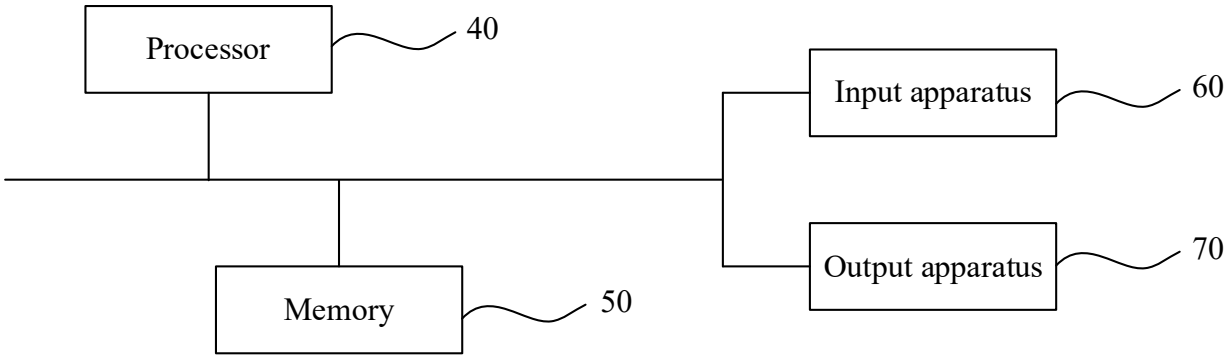

Processor
40
Input apparatus
60
Output apparatus
70
Memory
50

FIG. 9

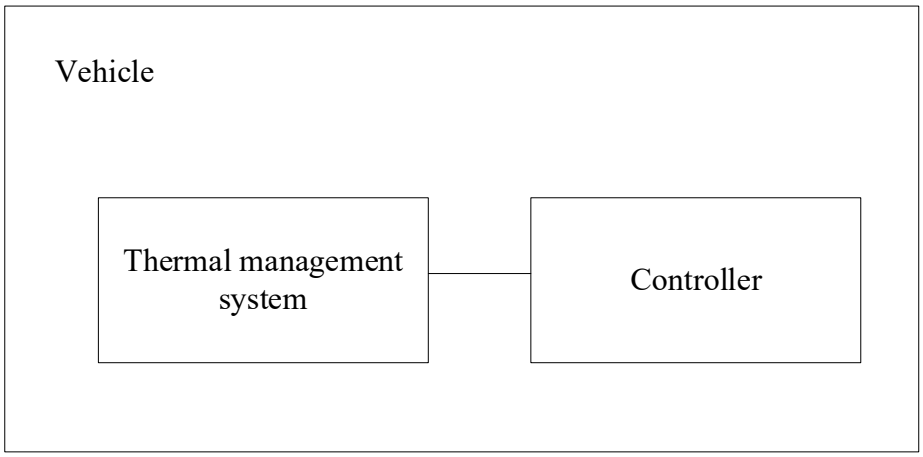

Vehicle
Thermal management system
Controller

FIG. 10