What is claimed is:

1. A cooling system, comprising:

an evaporator for evaporating a coolant by heat exchange with indoor air that is an object of air conditioning;

a condenser for cooling and thereby condensing the coolant evaporated by the evaporator;

a coolant liquid storage section that communicates with the condenser and stores the coolant liquid flowing in from the condenser;

a coolant pump that communicates with the coolant liquid storage section and pressure-transmits the coolant liquid toward the evaporator, the coolant liquid flowing in from the coolant liquid storage section;

a pressure difference sensor arranged at the coolant liquid storage section ~~a coolant liquid detection unit~~ to output a difference between pressures as a detection value for ~~individually~~ detecting whether or not a liquid level of the coolant liquid is stored in the coolant liquid storage section ~~is higher than or equal to respective plural heights including~~ up to a first height ~~and~~ or up to a second height higher than the first height in the coolant liquid storage section; and

a control unit that changes a rotation speed of a motor of the coolant pump, corresponding to ~~a~~ the detection ~~result~~ value that is input from the pressure difference sensor~~coolant liquid detection unit~~,

wherein the control unit:

stops rotation of the motor when a detection value by the pressure difference sensor has become lower than or equal to a first pressure that is a pressure at a time when coolant liquid is stored up to the first height; and

thereafter resumes rotation of the motor when a detection value by the pressure difference sensor has become higher than or equal to a second pressure that is a pressure at a time when coolant liquid is stored up to the second height.

~~2. The cooling system according to claim 1,~~

~~wherein the coolant liquid detection unit comprises plural liquid level sensors including a first liquid level sensor that detects whether or not coolant liquid with a liquid level higher than or equal to the first height is stored in the coolant liquid storage section and a second liquid level sensor~~

~~that detects whether or not coolant liquid with a liquid level higher than or equal to the second height is stored in the coolant liquid storage section,~~

~~and wherein the control unit:~~

~~stops rotation of the motor when coolant liquid is not detected by the first liquid level sensor; and~~

~~resumes rotation of the motor when coolant liquid is detected by the second liquid level sensor.~~

~~3. The cooling system according to claim 1,~~

~~wherein the coolant liquid detection unit comprises a pressure difference sensor arranged at the coolant liquid storage section,~~

~~and wherein the control unit:~~

~~stops rotation of the motor when a detection value by the pressure difference sensor has become lower than or equal to a first pressure that is a pressure at a time when coolant liquid is stored up to the first height; and~~

~~thereafter resumes rotation of the motor when a detection value by the pressure difference sensor has become higher than or equal to a second pressure that is a pressure at a time when coolant liquid is stored up to the second height.~~

42. The cooling system of any one of claims ~~1 to 3~~,

wherein a pipe connecting the coolant pump and the evaporator includes a standing tube that is standing up to a height higher than or equal to the second height.

~~5~~3. A cooling method for a cooling system,

wherein the cooling system includes:

an evaporator for evaporating a coolant by heat exchange with indoor air that is an object of air conditioning;

a condenser for cooling and thereby condensing the coolant evaporated by the evaporator;

a coolant liquid storage section that communicates with the condenser and stores the liquid flowing in from the condenser;

a coolant pump that communicates with the coolant liquid storage section and pressure-transmits the coolant liquid toward the evaporator, the coolant liquid flowing in from the coolant liquid storage section;

a pressure difference sensor arranged at the coolant liquid storage section ~~a coolant liquid detection unit~~ to output a difference between pressures as a detection value for detecting whether or not a liquid level of the coolant liquid is stored in the coolant liquid storage section ~~is higher than or equal to~~ up to a predetermined height; and

a control unit,

the cooling method comprising the steps of:

detecting, from the detection value output from the pressure sensor, whether or not a liquid level of the coolant liquid is stored in the coolant

liquid storage section up to a first height or up to a second height higher than the first height in the coolant liquid storage section;

~~individually detecting whether or not the liquid level of the coolant liquid stored in the coolant liquid storage section is higher than or equal to~~

~~respective plural heights including a first height and a second height higher than the first height in the coolant liquid storage section~~; and

changing, by the control unit, a rotation speed of a motor of the coolant pump, corresponding to a detection ~~result~~ value that is input from the pressure difference sensor~~coolant liquid detection unit~~

wherein the step of changing comprises:

stopping, by the control unit, rotation of the motor when a detection value by the pressure difference sensor has become lower than or equal to a first pressure that is a pressure at a time when coolant liquid is stored up to the first height; and

resuming thereafter, by the control unit, rotation of the motor when a detection value by the pressure difference sensor has become higher than or equal to a second pressure that is a pressure at a time when coolant liquid is stored up to the second height.