CLAIMS

1. An air conditioning system connected to a server room, the server room being configured with a cold space and a hot space separated from each other, and the server room including a server with a fan whose rotation number varies in accordance with an amount of heat dissipated therein, the server being disposed between the cold space and the hot space, to have cold air supplied through the cold space, heated by dissipation of heat at the server, and discharged as return air through the hot space, the air conditioning system comprising:

an air conditioner configured to send cold air to supply to the cold space;

an air blower configured to produce streams of air in and between the server room and the air conditioning system;

a sensor configured to take a measure of current or power as consumption at the server;

an air flow determiner configured to operate on the measure at the sensor to determine therefrom a draft of air from the cold space to the hot space; and

a controller configured for operations based on the draft of air determined at the air flow determiner to control a flux of air to be produced at the air blower.

2. The air conditioning system according to claim 1, further comprising an air flow sensor installed upstream of the air blower to measure a flux of air passing through the air blower, wherein

the controller is adapted to implement a feedback control of the air blower to establish a prescribed deviation between a target air flow and a result of measurement of the air flow sensor.

CLAIMS:

[1] An air conditioning system connected to a server room configured with a set of cold spaces and a hot space separated from each other, including a set of servers disposed between the set of cold spaces and the hot space, to have cold air supplied through cold spaces, heated by dissipation of heat at servers, and discharged as return air through the hot space, the air conditioning system comprising:

an air conditioner configured to send cold air to supply to the set of cold spaces;

an air blower configured to produce streams of air in and between the server room and the air conditioning system;

a sensor configured to take a measure of current or power as consumption at the set of servers; and

a controller configured for operations based on the measure at the sensor to control the air blower.

[2] The air conditioning system according to claim 1, further comprising an air flow determiner configured to operate on the measure at the sensor to determine therefrom a draft of air from the set of cold spaces to the hot space, wherein

the controller is adapted for operations based on the draft of air determined at the air flow determiner, to control a flux of air to be produced at the air blower.

[3] The air conditioning system according to claim 1, further comprising an air flow sensor installed upstream of the air blower to measure a flux of air passing through the air blower, wherein

the controller is adapted to implement a feedback control of the air blower to establish a prescribed deviation between a target air flow and a result of measurement of the air flow sensor.

[4] An air conditioning system connected to a server room configured with a set of cold spaces and a hot space separated from each other, including a set of servers disposed between the set of cold spaces and the hot space, to have cold air supplied through cold spaces, heated by dissipation of heat at servers, and discharged as return air through the hot space, the air conditioning system comprising:

an air conditioner configured to send cold air to supply to the set of cold spaces;

an air blower configured to produce streams of air in and between the server room and the air conditioning system;

a differential pressure sensor configured to measure a differential pressure between a cold space and the hot space, or a differential pressure between the hot space and a region in a server or a space in a rack accommodating a server; and

a controller configured for operations based on a measure at the sensor to control the air blower.

[5] The air conditioning system according to claim 4, further comprising a sensor configured to take a measure of current or power as consumption at the set of servers, wherein

the controller is adapted for operations based on the measure of current or power at the sensor to determine a target value of differential pressure, and compare the target value with a value measured at the differential pressure sensor, to control the air blower.