

ABSTRACT

A rotary wheel humidity regulating device, an air conditioning system having same, a control method for an air conditioning system, and a controller. The rotary wheel humidity regulating device includes an adsorption rotary wheel (1), a first heat exchanger (C), and a second heat exchanger (D). The adsorption rotary wheel (1) has a first portion located at an air inlet side of a fresh air system of an air conditioning system and a second portion located at an air return side of the fresh air system. The first heat exchanger (C) is disposed at a position on the air return side, is in communication with a refrigerant circuit of the air conditioning system, and is controlled for cooling or heating by the air conditioning system through the refrigerant circuit. The second heat exchanger (D) is disposed at a position on the air inlet side close to the first portion, is in communication with the refrigerant circuit, and is controlled for cooling or heating by the air conditioning system through the refrigerant circuit. Energy of the air conditioning system is utilized by the rotary wheel humidity regulating device to absorb moisture in the air and release the moisture from the adsorption rotary wheel. Therefore, it is possible to humidify a to-be-conditioned air and improve an energy utilization rate.

Fig. 1