Embodiments of the present invention seek to provide a failure diagnosis system that can perform failure diagnosis with high accuracy and high efficiency without impairing comfort.

Solution to Problem

[0009]

A failure diagnosis system according to an embodiment of the present invention is configured to diagnose a state of an air-conditioning apparatus having a refrigerant circuit in which a refrigerant circulates. The failure diagnosis system includes a state detection unit configured to detect a state of the refrigerant in the refrigerant circuit as state data, a controller configured to control an actuator of the air-conditioning apparatus, and an abnormality diagnosis unit configured to perform normal-operation abnormality diagnosis determining presence or absence of abnormality of the air-conditioning apparatus by using the state data and control data indicating a content of control by the controller during a normal operation of the air-conditioning apparatus. When determining that abnormality is present in the air-conditioning apparatus, the abnormality diagnosis unit is configured to change a control value of the actuator of the air-conditioning apparatus, acquire the state data and the control data, and perform abnormality-cause identification diagnosis identifying a cause of an abnormality of the air-conditioning apparatus by using the state data and the control data that are acquired before the change of the control value, and the state data and the control data that are acquired after the change of the control value.

Advantageous Effects of Invention

[0010]

According to the embodiment of the present invention, if it is determined that there is an abnormality in the air-conditioning apparatus during normal operation based on the state data and the control data, the control value of the actuator is changed. Then, the cause of the abnormality in the air-conditioning apparatus is identified by using the data acquired before the change of the control value and the data acquired after the change of the control value. Thus, the accuracy for determining whether or not there is an abnormality can be enhanced, and the cause