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Mitsubishi Electric introduces 3D sensor technology for air-conditioners

AIR-CONDITIONERS WITH ARTIFICIAL INTELLIGENCE TECHNOLOGY

Dedicated to continually optimizing the innovative functions of its products distinguished with their outstanding design and manufacturing processes, Mitsubishi Electric Air-Conditioning Systems create high energy efficiency and comfort with the new 3 dimensional sensor technology. Incorporating artificial intelligence technologies into air-conditioners with “3D i-See Sensor” system, Mitsubishi Electric is capable of distinguishing human beings and pets existing in a given space. The system guarantees optimum comfort in terms of ambient temperature by using 8 sensors to take measurements in 1,856 different spots in the space in totally 232 steps.

Homogenous air distribution which is essential for comfortable and healthy space both in summer and winter can be attained only by analysing every point of the space laterally and vertically. The distance between the floor and ceiling and radiation differences between the walls and windows lead to changes in heat layers. This, in turn, causes a number of negative consequences disturbing the comfort of inhabitants such as cold feet due to the temperature difference at the floor when hot water goes up to the ceiling in winter. Mitsubishi Electric provides solutions to the conditions affecting comfort negatively by means of “3D i-See Sensor” technology which adjusts the sensor fan speed and air direction mode automatically by measuring the temperature of the floor.

Measuring 1,856 cells with 8 sensors

Mitsubishi Electric’s wall type Kirigamine series air-conditioners and professional commercial type cassette air-conditioners use 3D sensor systems with different

versions to meet all kinds of demands instantly. “3D i-See Sensor” technology uses 8 sensors to perform measurements at 1,856 cells with totally 232 steps in order to eliminate negative conditions that may arise from temperature differences in the room. Thus, it ensures optimum comfort and energy efficiency.

Special technology to distinguish human beings from pets

Mitsubishi Electric’s “3D i-See Sensor” technology is capable of distinguishing human beings from pets as it conducts temperature measurement processes. The system also determines the location of people available in the room. This makes it possible to avoid blowing the cold air towards the populated areas in order not to disturb people in summer and to blow the hot air directly to the populated areas to maximize comfort in winter. This function can be easily activated via remote control to monitor users continuously so that air direction may be determined automatically according to demand in winter and summer.

Air-conditioning customized for requirements

It becomes more and more important to develop energy saving technological products due to the increasing energy scarcity in our modern world. In that regard, “3D i-See Sensor” technology is an important innovation that prevents unnecessary air-conditioning at places where there is no such requirement thanks to its capability to determine its mode of operation through a synthesis of the number and location of existing people with the distribution of heat in the relevant space. When the area where the users occupy reach the desired temperature, the system stops air-conditioning the other areas. Thus, it prevents excessive cold or heat in occupied areas arising from air-conditioning vacant locations in addition to contributing to optimum comfort at the location occupied by the users.

Automatic temperature setting according to number of people

3D sensor systems available in Mitsubishi Electric’s new cassette type air-conditioners are capable of adjusting the operation according to the number of people in addition to setting the temperature 1 or 2 degrees above or below when there no one is present in the room for energy saving purposes. The system automatically defines the maximum number of people present in the room when it is full. When the occupancy rate is as low as 30 per cent, it changes the temperature setting. The sensor updates the operations according to the change in the number of people by checking this rate every 3 minutes. If desired, the air-conditioner may stop working

when sensor does not detect anyone for a certain period of time. This feature ensures comfort and energy efficiency especially in commercial spaces where occupancy rates change instantly such as restaurants and offices. Besides, it prevents air-conditioners from consuming energy when they are not turned off by mistake.

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