Two-Channel Air-Conditioner for the Flexible Climate Control of a Number of Rooms

Abstract

The invention relates to a two-channel air-conditioner (10) for the climate control of a number of rooms (44, 46, 48) and/or room zones, having an air inlet device (52) in every room (44, 46, 48) to be climate controlled, having at least one pair of supply air channels (20, 22) wherein at least one supply channel (20, 22) comprises a cooling and/or heating register (32, 34; 58, 60) having at least one temperature regulator for each room (44, 46, 48) to be climate controlled, which keeps the room (44, 46, 48) to be climate controlled at a room temperature ($T_{room\ target}$) which can be set, having valve units (54, 72), which connect the supply air channels (20, 22) to the air inlet device (52). The invention is characterized in that it allows switching, the cooling or heating register (32, 34; 58, 60) is only opened as needed if the temperature in at least on of the supply air channels (20,22) is insufficient for cooling or heating the room (44, 46, 48) to be climate controlled.

(Fig.1)