

Abstract

An air-conditioner with high-efficiency differential cold-valley pipes , which include J pipes and a low-pressure circulating pump, has a first arc heat-exchanger which is formed by multiple-layer ladder-shaped corrugated plates and multiple-layer arc J pipe stacked alternatively, and a second arc heat-exchanger which is formed by multiple-layer arc J pipe and multiple-layer wave-shaped film-type evaporation face stacked alternatively. A low pressure pump is connected between the first arc heat-exchanger and the second arc heat-exchanger through pipelines. The air-conditioner solves the problems that the conventional air-conditioner consumes high energy, quality of the air in the room is low and the use of CFCs is confined.