

MULTIFUNCTIONAL AIR-CONDITIONING AND HOT-WATER SYSTEM

Abstract

Disclosed is a multifunctional air-conditioning and hot-water system which comprises a special three-way valve (2), a four-way valve (3), an outdoor heat exchanger (5), an indoor heat exchanger (6), a multifunctional throttling channel conversion device (7) and a pressure relief device (8). An inlet of the special three-way valve (2) is connected with an gas outlet of a compressor (1), one outlet of the special three-way valve (2) is connected with an inlet of a heat-exchange pipeline (41) of a water-heat exchanger (4), the other outlet of the special three-way valve (2) is connected with an inlet of the four-way valve (3), and an additional channel is connected with an inlet of the pressure relief device (8). A water output controller (110) linked with the special three-way valve (2) is disposed at the hot-water outlet end of the water-heat exchanger (4). Three outlets of the four-way valve (3) are connected with a heat exchange pipeline (51) of the outdoor heat exchanger (5), a heat exchange pipeline (61) of the indoor heat exchanger (6) and a return gas inlet of the compressor (1) respectively. The outlet of the heat exchange pipeline (41) of the water-heat exchanger (4), the other end of the heat exchange pipeline (51) of the outdoor heat exchanger (5) and the other end of the heat exchange pipeline (61) of the indoor heat exchanger (6) are connected with three ports of the multifunctional throttling channel conversion device (7) respectively.

[Fig 1]