

Title (en)

A dual-operation mode air conditioning apparatus.

Title (de)

Klimaanlage mit zwei Betriebsarten.

Title (fr)

Appareil de conditionnement d'air à deux modes d'opération.

Publication

EP 0409000 B1 19940202 (EN)

Application

EP 90112829 A 19900705

Priority

IT 2121289 A 19890718

Abstract (en)

[origin: EP0409000A1] This apparatus (1), which is designed for operation either as a heater or a cooler by reversing the flow of thermal fluid, comprises an indoor unit (2), an outdoor unit (3), a flexible connection element (4) between the indoor unit and the outdoor unit, an indoor heat exchanger (5) within the indoor unit (2), an outdoor heat exchanger (16) within the outdoor unit (3), a compressor (7) internal to the indoor unit (2), and an expansion device (33,34). The apparatus (1) also includes connective ducting comprising, inside the connection element (4), three flexible lines: a main flexible line (32) for the thermal fluid to flow between the outdoor heat exchanger (16) and the compressor (7) in either directions, a heating mode flexible line (33) for the thermal fluid to flow from the indoor heat exchanger (5) to the outdoor heat exchanger (16) during operation in the heating mode, and a cooling mode flexible line (34) for the thermal fluid to flow from the outdoor heat exchanger (16) to the indoor heat exchanger (5) during operation in the cooling mode. The flexible connection element (4) comprises a sleeve (26) defining two separate longitudinal cavities (27,28), of which one cavity (27) accommodates the main flexible line (32) together with the heating mode flexible line (33), and the other cavity (28) accommodates the cooling mode flexible line (34).

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CPC (source: EP US)

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Cited by

EP0779482A3; EP1564508A3; US7419192B2; US7712319B2; US7610765B2; US7552596B2; US7472557B2; US9759465B2; WO9527177A1; WO9301459A1

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