

Title (en)

A unitary heat pump air conditioner having a heat exchanger with an integral accumulator

Title (de)

Einheitliche Wärmepumpenklimateanlage mit Wärmetauscher mit integriertem Akkumulator

Title (fr)

Climatiseur à pompe à chaleur unitaire comportant un échangeur de chaleur avec un accumulateur intégral

Publication

EP 2629032 B1 20170712 (EN)

Application

EP 13155505 A 20130215

Priority

- US 201213453550 A 20120423
- US 2012025157 W 20120215
- US 2012025419 W 20120216

Abstract (en)

[origin: EP2629032A2] The disclosure relates to a unitary heat pump air conditioner (Unitary HPAC) having a plate type exchanger assembly, an electrically driven compressor, and coolant pumps. The plate heat exchanger assembly includes a plurality of plates stacked and hermetically sealed between an upstream end plate and a downstream end plate. The stacked plates define a condenser/chiller portion adjacent the upstream end plate, an accumulator portion adjacent the downstream end plate, and an evaporator/chiller portion sandwiched between the condenser/chiller portion and the accumulator portion. A refrigerant passageway extends through the plate type heat exchanger assembly, a hot coolant passageway extends through the condenser/chiller portion, and a cold coolant passageway extends through the evaporator/chiller portion. The cold coolant passageway and the hot coolant passageway are in non-contact thermal communication with the refrigerant passageway.

IPC 8 full level

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CPC (source: EP)

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Cited by

US11318809B2; US2023050237A1; EP3193102A4; FR3127723A1; GB2529162A; GB2529162B; WO2023057524A1

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