

Title (en)

A shell-and-plate condenser, a method for removing oil from a refrigerant and use of a shell-and-plate condenser

Title (de)

Mantel-Platten-Kondensator, Verfahren zur Entfernung von Öl aus einem Kältemittel und zur Verwendung des Mantel-Platten-Kondensators

Title (fr)

Condenseur bloc et plaque, procédé d'extraction d'huile à partir d'un fluide frigorigène et utilisation d'un tel condenseur

Publication

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Application

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Priority

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Abstract (en)

Disclosed is a shell-and-plate condenser (1) comprising a stack of corrugated heat transfer plates (5) arranged inside a tubular outer shell (8), wherein the outer shell (8) comprises at least one entrance hole (2) for leading oil-containing refrigerant into the condenser (1) and the condenser (1) further comprises an integrated oil separator unit (3) arranged above the plate stack. The oil separator unit (3) includes at least one flow distribution chamber (4) being connected to at least one of the entrance holes (2), wherein the flow distribution chamber (4) substantially extends in a longitudinal direction of the tubular outer shell (8) and wherein the flow distribution chamber (4) comprises at least one sidewall (6) comprising a plurality of exit holes (7) through which the oil-containing refrigerant leaves the flow distribution chamber (4) in a direction substantially transversal to the longitudinal direction of the outer shell (8) and flows out into a flow guide channel (9) of the oil separator unit (3). The oil separator unit (3) further includes at least one outflow demister element (10) arranged in a demister part (11) of the flow guide channel (9). A method for removing oil from a refrigerant by means of an oil separator unit (3) arranged inside a tubular outer shell (8) of a shell-and-plate condenser (1) and use of a shell-and-plate condenser (1) is also disclosed.

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

WO 2007057025 A2 20070524 - YORK DENMARKS APS [DK], et al

Citation (search report)

- [AD] WO 2007057025 A2 20070524 - YORK DENMARKS APS [DK], et al
- [A] EP 2789934 A1 20141015 - OCS COLD S R L [IT]

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CN106766398A; CN109323486A; CN106150599A; CN106802033A; CN107940836A; WO2019119840A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

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