

Title (en)
LIQUID-VAPOR SEPARATOR FOR A MINICHANNEL HEAT EXCHANGER

Title (de)
FLÜSSIGKEITS-/DAMPFABSCHIEDER FÜR EINEN MINIKANAL-WÄRMETAUSCHER

Title (fr)
SEPARATEUR LIQUIDE-VAPEUR POUR ECHANGEUR DE CHALEUR A MINICANAUX

Publication
EP 1844271 A2 20071017 (EN)

Application
EP 05855852 A 20051228

Priority
• US 2005047359 W 20051228
• US 64943505 P 20050202

Abstract (en)
[origin: WO2006083445A2] A method and apparatus for promoting uniform refrigerant flow in a minichannel heat exchanger by providing a liquid-vapor separator between an expansion device and the inlet header such that the refrigerant vapor will pass directly to the compressor and only the liquid refrigerant will pass to the inlet header. The liquid-vapor separation is accomplished by way of a float valve which prevents the flow of liquid refrigerant to the compressor and the flow of refrigerant vapor from the outlet manifold, through the valve and back to the inlet manifold. A second float valve may be provided between a downstream end of the inlet manifold and the compressor for the purpose of removing any residual vapor from the liquid.

IPC 8 full level
F25B 43/00 (2006.01); **F25B 5/00** (2006.01); **F25B 39/02** (2006.01); **F25B 39/04** (2006.01); **F25B 49/00** (2006.01); **F28D 7/06** (2006.01)

CPC (source: EP KR US)
F25B 41/22 (2021.01 - EP KR US); **F25B 43/00** (2013.01 - KR); **F25B 43/006** (2013.01 - EP US); **F25B 43/02** (2013.01 - KR); **F25B 2400/0409** (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US); **F25B 2600/2501** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2006083445 A2 20060810; WO 2006083445 A3 20061221; AU 2005326650 A1 20060810; AU 2005326650 B2 20100826; BR PI0519906 A2 20090908; CA 2596331 A1 20060810; CN 101111731 A 20080123; EP 1844271 A2 20071017; EP 1844271 A4 20111228; JP 2008528939 A 20080731; KR 20070091343 A 20070910; MX 2007009257 A 20070904; US 2008104975 A1 20080508

DOCDB simple family (application)
US 2005047359 W 20051228; AU 2005326650 A 20051228; BR PI0519906 A 20051228; CA 2596331 A 20051228; CN 200580047683 A 20051228; EP 05855852 A 20051228; JP 2007554088 A 20051228; KR 20077016458 A 20070719; MX 2007009257 A 20051228; US 79477405 A 20051228