

Title (en)
Expansion device

Title (de)
Entspannungsvorrichtung

Title (fr)
Dispositif détenteur

Publication
EP 1512926 A3 20080319 (EN)

Application
EP 04021240 A 20040907

Priority
• JP 2003315493 A 20030908
• JP 2004070947 A 20040312

Abstract (en)
[origin: EP1512926A2] An expansion device 1 allows to cancel part of the refrigerant pressure by a pressure-cancelling structure. Due to the pressure on a valve-closing pressure-receiving surface 27, the elastic force of a spring 18 is reduced. The spring 18 has a small size. The expansion device 1 is compact. When a differential pressure is equal or higher than a predetermined value, a relief mechanism relieves refrigerant from the upstream side through a valve element 20 into a separate passage, to prevent an abnormal inside pressure rise.

IPC 8 full level
B60H 1/32 (2006.01); **F25B 41/06** (2006.01)

CPC (source: EP US)
F25B 41/33 (2021.01 - EP US); **F25B 2341/062** (2013.01 - EP US)

Citation (search report)
• [XY] EP 1167899 A2 20020102 - TGK CO LTD [JP]
• [XY] JP S55165460 A 19801223 - SEZAKI SHIZUO
• [XY] JP H11257802 A 19990924 - CALSONIC CORP
• [X] JP S54105327 A 19790818 - SEZAKI SHIZUO
• [X] JP S54102627 A 19790813 - SEZAKI SHIZUO

Cited by
CN107636405A; EP3135968A4; CN106170670A; EP3136024A4; US10054343B2; US11330837B2; US9945592B2; EP3719419A1; US2020318742A1; CN111795178A; WO2009060465A3

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

Designated extension state (EPC)
AL HR LT LV MK

DOCDB simple family (publication)
EP 1512926 A2 20050309; EP 1512926 A3 20080319; JP 2005106452 A 20050421; US 2005050916 A1 20050310

DOCDB simple family (application)
EP 04021240 A 20040907; JP 2004070947 A 20040312; US 93344704 A 20040903