

Title (en)
Refrigerating plant with ejector

Title (de)
Kälteanlage mit Ejektor

Title (fr)
Installation frigorifique avec éjecteur

Publication
EP 2754979 A1 20140716 (EN)

Application
EP 13196599 A 20131211

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IT PD20130004 A 20130115

Abstract (en)
The invention relates to a refrigerating plant with ejector, operating with a refrigerant according to a vapour compression cycle and comprising in a main circuit 200A: - a condenser 210; - an expansion device 211 positioned downstream of the condenser 210; -an evaporator 214 positioned downstream of the expansion device 211; - compression means 215 which are positioned downstream of the evaporator 214 and comprise a first low pressure compression stage 215b fluidically connected to the evaporator and a second high pressure compression stage 215a fluidically connected to the condenser 210. The plant comprises an ejector 216 positioned between the two compression stages, which comprises a first inlet 216a for a driving flow, a second inlet 216b for a driven flow and an outlet 216c for ejection of the mixture of the two flows. The ejector is fluidically connected to the first low pressure stage at the second inlet and to the second high pressure stage at the outlet. The plant comprises a receiver of liquid 212 positioned in the main circuit between the outlet of the ejector and the second high pressure stage. In the receiver the refrigerant ejected by the ejector separates into the liquid phase and the vapour phase. The plant comprises a secondary branch 200B which connects the receiver in parallel to the first inlet of the ejector and comprises at least one pump 221 which recirculates the liquid phase at the first inlet of the ejector. The vapour phase of the refrigerant is aspirated by the second high pressure stage of the compression means.

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