

Title (en)
REGULATOR WITH RECEIVER FOR REFRIGERATORS AND HEATPUMPS

Title (de)
REGLER MIT SAMMLER FÜR KÄLTEANLAGEN UND WÄRMEPUMPEN

Title (fr)
REGULATEUR AVEC BOUTEILLE ACCUMULATRICE POUR REFRIGERATEURS ET POMPES A CHALEUR

Publication
EP 1264150 B1 20050831 (EN)

Application
EP 01911456 A 20010305

Priority
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• DK PA200000398 A 20000313

Abstract (en)
[origin: US2003097856A1] The regulator is a refrigerant regulator intended for heatpumps and refrigerators. It has a built-in receiver, which automatically absorbs redundant refrigerant. It is a hermetic closed device without removable parts. It is robust and there is no need for adjustment. The regulator is composed of a heat exchanger with large heat capacity, a receiver and two pressure reducing valves. The two valves behave different on boiling fluid flow. One of them, named a heat sensitive valve, restricts fluid flow when the fluid is boiling. In the other valve, named a pressure sensitive valve, the boiling has no influence on the fluid flow. The regulator controls the refrigerant flow from the receiver to the evaporator by means of the pressure in the receiver and the pressure in the receiver is controlled, via the heat exchanger, by the need of refrigerant in the evaporator. This way of control ensures 100% use of the evaporator, the suction gas is superheated, and the liquid from the condenser is sub-cooled. These factors improve the relation between the cooling capacity and the power consumption with more than 10%.

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