

Title (en)
VAPOUR COMPRESSION SYSTEM

Title (de)
DAMPFKOMPRESSIONSVERFAHREN

Title (fr)
SYSTEME DE COMPRESSION DE VAPEUR

Publication
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Application
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Priority
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Abstract (en)
[origin: WO9620378A1] A vapour compression system in which a quantity of a refrigerant circulates between at least two pressure levels in a condenser and an evaporator respectively, comprises a compressor (1) for increasing the pressure of refrigerant vapour; a condenser (5) for high pressure refrigerant vapour received from the compressor; an expansion device (13) such as a valve across which the pressure differential between the condenser and the evaporator is maintained, to control the withdrawal of liquid refrigerant from the condenser according to the volume of liquid refrigerant that is within or behind it; an evaporator (15) for liquid refrigerant received from the condenser; a receiver (21) into which refrigerant is discharged from the evaporator, with a vapour withdrawal conduit (25) through which vapour is withdrawn from the receiver for supply to the compressor, the receiver including a reservoir (23) into which liquid refrigerant discharged from the evaporator collects, to control supply of liquid refrigerant to the compressor; a liquid withdrawal conduit (27) through which liquid refrigerant is supplied from the reservoir into the vapour withdrawal conduit; and means (35) for controlling the rate of removal of liquid refrigerant from the reservoir in proportion to the amount of refrigerant that is removed from the receiver as vapour. The system can ensure that the wetness of the refrigerant discharged into the receiver from the evaporator is controlled to ensure that it is wet under normal operating conditions of the system, to optimise use of heat exchange surfaces of the condenser and the evaporator.

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