

Title (en)
SENSOR ARRANGEMENT IN A HEAT PUMP SYSTEM

Title (de)
SENSORANORDNUNG IN EINER WÄRMEPUMPE

Title (fr)
AGENCEMENT DE CAPTEUR DANS UN SYSTÈME DE POMPE À CHALEUR

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Application
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Abstract (en)
The present invention discloses a heat pump system including a refrigerant circuit having a compressor, a first heat exchanger downstream of the compressor for operating as a condenser in a heating mode and operating as an evaporator in a cooling mode, a throttling device downstream of the first heat exchanger, and a second heat exchanger downstream of the throttling device for operating as an evaporator in the heating mode and operating as a condenser in the cooling mode. A reversing valve is disposed in the refrigerant circuit between the compressor and the first/second heat exchanger for selectively reversing the refrigerant flow therein. A sensor combination for being used to calculate a present super-heating degree, wherein the sensor combination includes a temperature sensor for detecting a temperature of the refrigerant after leaving from the second heat exchanger and before entering the reversing valve and a second sensor for being used to measure a saturated temperature of the refrigerant at a low pressure side. In this way, the heat pump system can avoid super-heating degree instabilities caused by the reversing valve, thereby improving its performance and efficiency.

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Citation (search report)
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