

Title (en)  
REFRIGERATING SYSTEM AND THERMOSTATIC EXPANSION VALVE THEREOF

Title (de)  
KÜHLANLAGE UND THERMOSTATISCHES EXPANSIONSVENTIL DAFÜR

Title (fr)  
SYSTÈME DE RÉFRIGÉRATION ET SOUPAPE À EXPANSION THERMOSTATIQUE DE CELUI-CI

Publication  
**EP 2664869 B1 20180321 (EN)**

Application  
**EP 12734051 A 20120112**

Priority  
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• CN 2012070276 W 20120112

Abstract (en)  
[origin: EP2664869A1] Disclosed are a thermostatic expansion valve and a refrigerating system comprising the thermostatic expansion valve. The thermostatic expansion valve comprises a valve body (1) arranged with an air box on the top, and the inner chamber of the air box is divided into an upper chamber (22) and a lower chamber (23) by a diaphragm (21). Within the inner chamber of the valve body (1) there are provided a valve plug component (3) and a valve port (11) matched with the valve plug component (3). The inner chamber of the valve body (1) is divided into a first interface chamber (12) and a second interface chamber (13) by a sealing line or sealing face (31) between the valve port (11) and the valve plug component (3). At the lower end part of the valve body (1) there is provided a balance chamber (14) to balance the valve plug component (3). The upper end part of the valve plug component (3) is arranged within the lower chamber (23) and the lower end part thereof is arranged within the balance chamber (14) of the valve body (1). The balance chamber (14) is in communication with the lower chamber (23), and the balance chamber (14) is in sealed isolation from both the first interface chamber (12) and the second interface chamber (13). The structure of the thermostatic expansion valve is capable of reducing the systematic pressure difference to which the valve plug component (3) is subjected, such that the regulating precision of the valve plug component (3) is improved.

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