

Title (en)
ELECTRIC AND SOLAR WATER-HEATER SUPPLY AND RELIEF SYSTEM

Title (de)
ZUFÜHRUNGS- UND DRUCKENTSPANNUNGSANLAGE FÜR ELEKTRISCHEN- UND SOLARBEHEIZTEN WASSERERHITZER

Title (fr)
SYSTEME D'ALIMENTATION ET DE SURETE D'UN CHAUFFE-EAU ELECTRIQUE ET SOLAIRE

Publication
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Application
EP 03751066 A 20031015

Priority
• GR 0300047 W 20031015
• GR 2002100457 A 20021024

Abstract (en)
[origin: WO2004038305A1] Relief system of water-heater and hydraulic system, whereby the cold water inflow pipe (11) is placed above the water flow level of the water-heater (14) at which spot a multiple-relief valve (17) is fitted which introduces atmospheric air in case of a pressure drop in the network below atmospheric pressure, thus maintain water fullness in the water-heater, while at the same time allowing the relief of overpressure in the water-heater when it exceeds certain limits. Then, the water supply is directed towards the bottom of the water-heater through the single-pipe connection. The multiple-relief valve is fitted at a spot on the water inflow network, located above the upper water level (14) in the water-heater. The membrane valve (29) opens when the pressure exceeds the pressure safety levels and relieves the system. The air inflow valve (37) opens when there is a drop in the network pressure, thus preventing water-heater depletion. The benefits of this invention regards the 100% protection offered against overpressure in the water-heater, due to the communicating vessels effect and the prevention of the water-heater depletion, that may have uncontrollable and disastrous consequences. Also there is no valve or spring neither in the inlet nor the outlet of water, thus excluding all possibility of salt-formation and obstruction of its operation.

IPC 8 full level
F24H 9/12 (2006.01)

CPC (source: EP)
F24H 9/136 (2022.01)

Citation (examination)
US 5060687 A 19911029 - GAYTON DAVID E [US]

Cited by
CN113144494A

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