

Title (en)

EXPLOSION-PROTECTED FUEL CELL SYSTEM AND METHOD FOR DEACTIVATING A FUEL CELL SYSTEM

Title (de)

EXPLOSIONSGESCHÜTZTES BRENNSTOFFZELLENSYSTEM UND VERFAHREN ZUR AUßERBETRIEBSETZUNG EINES BRENNSTOFFZELLENSYSTEMS

Title (fr)

SYSTÈME DE PILES À COMBUSTIBLE PROTÉGÉ CONTRE DES EXPLOSIONS ET PROCÉDÉ DE MISE HORS SERVICE D'UN SYSTÈME DE PILES À COMBUSTIBLE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2018019936A1] The invention relates to a fuel cell system (1) having lines for feeding hydrogen from a high-pressure hydrogen supply container (20) into a fuel cell arrangement (30). The lines have a high-pressure region, a medium-pressure region and a fuel-cell operating pressure region. According to the invention, the lines of the medium-pressure region are pressure-relieved upon a deactivation of the fuel cell system (1) in order to avoid hydrogen diffusing out during the standstill period of the fuel cell system, and thus to avoid the formation of explosive hydrogen/air mixtures. The invention also relates to a tank module (2) which is configured for the pressure relieving according to the invention, to a method for deactivating and reactivating the fuel cell system according to the invention, to the use of a 3/2-way valve (25) for pressure-relieving the medium-pressure region of the hydrogen lines of a fuel cell system (1) according to the invention, and to a motor vehicle having a fuel cell system (1) or tank module (2) according to the invention.

IPC 8 full level

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CPC (source: EP KR US)

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Citation (search report)

See references of WO 2018019936A1

Designated contracting state (EPC)

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