

Title (en)

WATER HEATING DEVICE WITH FLAME SENSOR

Title (de)

WASSERHEIZVORRICHTUNG MIT FLAMMENSSENSOR

Title (fr)

DISPOSITIF DE CHAUFFAGE D'EAU AVEC DÉTECTEUR DE FLAMME

Publication

**EP 4293282 A2 20231220 (EN)**

Application

**EP 23165324 A 20230330**

Priority

KR 20220071768 A 20220613

Abstract (en)

Disclosed is a water heating device including a combustion chamber provided with an interior space, in which a combustion reaction occurs, a burner that causes the combustion reaction in the interior space, a heat exchanger including a heat exchange pipeline, in which water flows along an interior thereof, and that heats the water by using heat generated by the combustion reaction, a flame detecting sensor that senses flames generated in the interior space, an upper housing covering an upper side of the interior space, and having a mounting hole such that the flame detecting sensor is mounted therein, a flame tube including a tube part that surrounds at least some of the flames on a lower side of the upper housing, and an extending part surrounding a sensing hole formed at a location corresponding to the mounting hole such that the flames are sensed by the flame detecting sensor, and extending from the tube part toward the mounting hole, and a tube packing disposed between an inner surface of the upper housing, which defines the mounting hole and the extending part.

IPC 8 full level

**F23D 11/00** (2006.01); **F23D 11/40** (2006.01); **F23D 14/02** (2006.01); **F23N 5/08** (2006.01)

CPC (source: EP KR)

**F23D 11/001** (2013.01 - EP); **F23D 11/404** (2013.01 - EP); **F23D 14/02** (2013.01 - EP); **F23N 5/02** (2013.01 - KR); **F23N 5/082** (2013.01 - EP); **F24H 9/2035** (2013.01 - KR); **F23D 2208/10** (2013.01 - EP); **F23D 2900/11403** (2013.01 - EP); **F23N 2229/00** (2020.01 - EP KR); **F23N 2231/00** (2020.01 - KR); **F23N 2239/04** (2020.01 - EP); **F23N 2239/06** (2020.01 - EP); **F23N 2241/02** (2020.01 - KR); **F23N 2241/04** (2020.01 - EP KR); **F23N 2900/05005** (2013.01 - EP); **F24H 9/0031** (2013.01 - KR)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

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