

Title (en)

GAS WATER HEATER AND SAFETY CONTROL SYSTEM AND METHOD THEREFOR

Title (de)

GASWASSERERHITZER UND SICHERHEITSSTEUERUNGSVERFAHREN UND -SYSTEM DAFÜR

Title (fr)

CHAUFFE-EAU À GAZ ET SYSTÈME DE COMMANDE DE SÉCURITÉ ET PROCÉDÉ ASSOCIÉ

Publication

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Application

EP 16869368 A 20161229

Priority

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Abstract (en)

[origin: EP3312523A1] The present invention provides a gas water heater and a safety control method and system for the same. The system includes: an exhaust fan, configured to exhaust waste gas generated when the gas water heater burns gas; a rotational speed detecting unit, configured to detect a rotational speed of the exhaust fan; a power obtaining unit, configured to obtain a set value for output power of the exhaust fan; and an exhaust control unit, connected to the exhaust fan, the rotational speed detecting unit and the power obtaining unit respectively, configured to determine a wind pressure situation at an air outlet of the exhaust fan according to the rotational speed and the set value for the output power, and to adjust the set value for the output power according to the wind pressure situation. The system may ensure that the gas water heater has a good combustion condition and operates safely and reliably. Moreover, the system has a fast response speed and may provide more accurate air volume, improve the control accuracy and have a low cost.

IPC 8 full level

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Citation (search report)

- [XAI] WO 2009107897 A1 20090903 - RINNAI KOREA CORP [KR], et al
- [XAI] CN 102080878 A 20110601 - HAIER GROUP CO LTD, et al
- [A] US 2010195991 A1 20100805 - DEIVASIGAMANI SRIDHAR [US], et al
- [A] JP 2006094575 A 20060406 - RINNAI KK
- [A] JP H10220741 A 19980821 - NORITZ CORP
- See references of WO 2018040433A1

Designated contracting state (EPC)

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