

Title (en)
Method for operating a gas burner

Title (de)
Verfahren zum Betrieb eines Gasbrenners

Title (fr)
Procédé de fonctionnement d'un brûleur à gaz

Publication
EP 2667097 A1 20131127 (EN)

Application
EP 12169240 A 20120524

Priority
EP 12169240 A 20120524

Abstract (en)
Method for operating a gas burner (10), wherein during burner-on phases a defined gas/air mixture having a defined mixing ratio of gas and air is provided to a burner chamber (11) of the gas burner (10) for combusting the defined gas/air mixture within the burner chamber (11), wherein the defined gas/air mixture is provided by a mixing device (23) mixing an air flow provided by an air duct (15) with a gas flow provided by a gas duct (16). During burner-on phases the defined mixing ratio of gas and air of the defined gas/air mixture can be calibrated to different gas qualities on basis of a signal provided by an ionization sensor (13) positioned downstream of the mixing device (23) within the burner chamber (11). For the calibration of the gas/air mixture the gas/air mixture is made richer by increasing the gas amount of the gas/air mixture relative to the air amount of the same until a flattening or a maximum of the signal provided by the ionization sensor (13) is detected, whereby the further calibration of the gas/air mixture depends on if either a flattening or a maximum of the signal provided by the ionization sensor (13) is detected.

IPC 8 full level
F23N 1/02 (2006.01); **F23N 5/12** (2006.01)

CPC (source: EP)
F23N 1/022 (2013.01); **F23N 5/123** (2013.01); **F23N 2227/20** (2020.01)

Citation (applicant)
• EP 0833106 B1 20011114 - HONEYWELL BV [NL]
• EP 0962703 B1 20050817 - HONEYWELL BV [NL]
• EP 1309821 B1 20050330 - HONEYWELL BV [NL]
• DE 102008031979 A1 20090115 - VAILLANT GMBH [DE]

Citation (search report)
• [XAY] EP 0806610 A2 19971112 - STIEBEL ELTRON GMBH & CO KG [DE]
• [XY] DE 19618573 C1 19970626 - STIEBEL ELTRON GMBH & CO KG [DE]
• [Y] WO 2004015333 A2 20040219 - MERLONI TERMOSANITARI SPA [IT], et al
• [YA] WO 9718417 A1 19970522 - GAS RES INST INC [US]

Cited by
EP3073195A1; EP3617596A1; DE102015225896A1; DE102015225886A1; EP4155609A1; EP4033148A1; WO2023046466A1; WO2022157320A1; US2017292698A1; JP2020046096A; US10520186B2; EP4008957A1; CN105987397A; WO2018215527A1; WO2021165051A1; US11441772B2; US10247416B2; US11608984B1; EP4279808A1; WO2023222696A1; US11287131B2; EP3228936B1; EP4092325A1; WO2022243160A1; US11608983B2; EP3182007A1; EP3699492A1; EP3059496A1; EP3913285A1; EP4119846A1; WO2023285352A1; US11635206B2; EP3043115A1; EP3228936A1; EP4119845A1; WO2023285345A1

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 MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2667097 A1 20131127; EP 2667097 B1 20180307

DOCDB simple family (application)
EP 12169240 A 20120524