

Title (en)

Solid fuel apparatus for heating, using air, one or more user devices and corresponding heating method

Title (de)

Festbrennstoffvorrichtung zum Erwärmen mit Luft, ein oder mehrere Benutzereinrichtungen und entsprechendes Erwärmungsverfahren

Title (fr)

Appareil de chauffage de combustible solide utilisant de l'air, un ou plusieurs dispositifs d'utilisateur et procédé de chauffage correspondant

Publication

EP 2674680 A3 20180314 (EN)

Application

EP 13172157 A 20130614

Priority

IT UD20120113 A 20120615

Abstract (en)

[origin: EP2674680A2] An apparatus (10) for heating, using air, one or more user devices (11) connected thereto, comprising a closed heat generator (12) fed with solid fuel, in particular a biomass, has inside it a closed combustion chamber (17) and first liquid heat exchange means (14) cooperating with the combustion chamber (17), to carry out the heat exchange between the fumes deriving from the combustion of said biomass and a heat-carrying liquid which flows in said first heat exchange means (14). The apparatus (10) for heating, using air, also comprises second heat exchange means (18), of the air-liquid type, external and distanced from said closed heat generator (12), in which air flows to be heated and distributed to said one or more user devices (11) to be heated. Said second heat exchange means (18) are fluidically connected to said first heat exchange means (14) to heat said air by means of said heated liquid coming from said first heat exchange means (14).

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [XY] US 2009266278 A1 20091029 - WIERZCHON THOMAS A [US]
- [X] US 4330083 A 19820518 - DI FIORE DANTE
- [X] FR 2485167 A1 19811224 - MARINO PROSPERI [IT]
- [X] GB 2475562 A 20110525 - E W M LTD [GB]
- [Y] US 4153199 A 19790508 - ELLMER DAVID
- [Y] US 2010324741 A1 20101223 - HOUSE JOHN M [CA], et al
- [A] FR 2920222 A1 20090227 - DURVICQ CHEVALIER RAYMOND [FR]
- [A] US 4454827 A 19840619 - SMITH NORMAN [US], et al
- [A] US 4312278 A 19820126 - SMITH NORMAN, et al
- [A] US 2002083944 A1 20020704 - DARBONNE JOHNNY R [US]

Cited by

CN111637628A; DE202015107108U1

Designated contracting state (EPC)

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