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(54) Improved laundry treating appliance

(57) The present invention generally relates to household and/or professional laundry treating appliances configured for performing drying operations. A laundry treating appliance **(100)** according to the invention comprises a cabinet **(105)** formed by panels **(105_F, 105_S 105_T),** an air passage **(130_{IN}, 130_{OUT})** provided on a front face of a cabinet panel **(105_F, 105_S 105_T)** for allowing ambient air **($A_{F,IN}$ $A_{F,OUT}$)** to enter or exit the appliance, said appliance being characterized in that a bottom face (135) of said cabinet panel **(105_F, 105_S 105_T)** further comprises at least one auxiliary air passage (**130_{INaux}, 130_{OUTaux}**) for allowing auxiliary ambient air (**$A_{F,INaux}$, $A_{F,OUTaux}$**) to enter or exit the appliance from below.

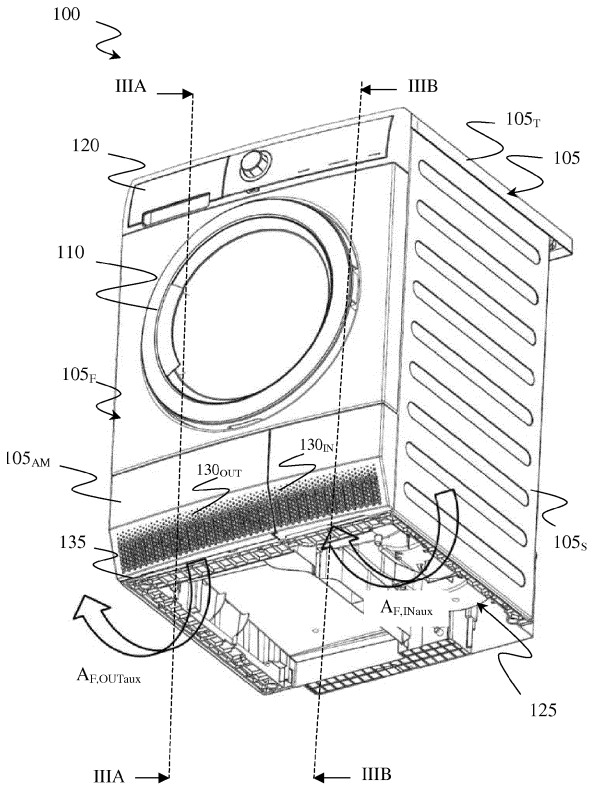

FIG.1

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Description

Field of the invention

[0001] The present invention generally relates to household and/or professional laundry treating appliances configured for performing drying operations. More particularly, the present invention relates to laundry drying appliances and/or laundry washing/drying appliances provided with a moisture condensing unit for condensing moisture-laden process air resulting from such drying operations.

Background of the invention

[0002] Each household and/or professional laundry treating appliance conceived for performing laundry drying operations, such as laundry drying appliances (concisely, laundry dryer, to which reference will be made hereinafter by way of example only) and/or laundry washing/drying appliances, generally comprises a drying chamber configured for housing a laundry load (including articles such as clothes and other textiles) and for causing process air circulating therethrough to remove moisture from the laundry load, *e.g.* shortly after cleaning/washing thereof.

[0003] As known, a first class of laundry dryers comprises so-called "venting dryers", which are generally configured for continuously drawing in cool, dry, ambient air around them, heating it up (thereby obtaining the corresponding process air), and feeding the process air into the drying chamber (where laundry load moisture absorption by the process air occurs). The resulting moisture-laden process air from the drying chamber is finally vented outside the laundry dryer to make room for more process air to continue the drying process.

[0004] On the other hand, a second class of laundry dryers comprises so-called "condensation dryers", which are generally configured for condensing the process air moisture (by means of a moisture condensing unit - or simply, condensing unit), and draining the condensed (hence, liquid) moisture into a proper collection tank (*e.g.*, for manual extraction and emptying thereof by a user).

[0005] As known, the condensing unit may comprise either an evaporator member of a heat pump device, or an air-air heat exchanger, both configured for de-moisturizing the process air by using a proper de-moisturizing fluid (typically, a refrigerant or the ambient air, respectively).

[0006] Regardless from the specific solution used for implementing the condensing unit, most of commonly marketed laundry dryers incorporate technicalities for allowing a certain amount of ambient air to enter the laundry dryer; such ambient air may be used as de-moisturizing air of the air-air heat exchanger, and/or as cooling air for cooling down (thereby ensuring a correct and reliable operation of) components responsible for operation of the appliance (operative components).

[0007] For example, according to a widely and commonly used approach, the laundry dryer is provided with air inlets and air outlets for causing the ambient air to enter the laundry dryer (and be channeled or piped towards the condensing unit), and corresponding discard air (*i.e.,* the ambient air affected by cooling and/or de-moisturizing process) to be expelled from it, respectively. In a typical implementation, such air inlets and air outlets, provided on suitable portions of the laundry dryer cabinet (usually, near the condensing unit), form, as a whole, an air grid putting into fluid communication the outside of the laundry dryer with the condensing unit (and/or the operative components to be cooled).

Summary of the Invention

[0008] The Applicant has found that the known and practiced solutions are not satisfactory for modem technological requirements.

[0009] In this respect, the Applicant believes that the air grid as presently implemented is not satisfactory in terms of amount of ambient air able to enter the laundry dryer and discard air able to exit therefrom. Such amount has been found to be limited by air grid area issues, which is not susceptible to be discretionally increased in order to not impair aesthetical requirements of the laundry dryer, and hence attractiveness thereof.

[0010] Thus, typically the amount of air entering and/or exiting the laundry dryer is not enough. This may lead to slower cooling and/or de-moisturizing processes, which in turn may involve performance issues of the overall laundry dryer - as the drying operation times of the laundry dryer become not effective, thus longer and power wasting - as well as reliability issues - as the operative components may dangerously operate in overheating conditions for relatively long period of use.

[0011] Such drawbacks are exacerbated in most of modem laundry dryers, wherein the increased size of the drying chambers - intended to meet user requirements of high laundry-capacity for the same, or better, drying performance - involves more air to be used.

[0012] The Applicant has faced the problem of devising a satisfactory solution able to overcome the above-discussed drawbacks.

[0013] In particular, one or more aspects of the solution according to specific embodiments of the invention are set out in the independent claims, with advantageous features of the same solution that are indicated in the dependent claims (with any advantageous feature provided with reference to a specific aspect of the solution according to an embodiment of the invention that applies *mutatis mutandis* to any other aspect thereof).

[0014] An aspect of the solution according to one or more embodiments of the present invention relates to a laundry treating appliance comprising a cabinet formed by panels, an air passage provided on a front face of a cabinet panel for allowing ambient air to enter or exit the appliance, a bottom face of said cabinet panel further

comprises at least one auxiliary air passage for allowing auxiliary ambient air to enter or exit the appliance from below.

[0015] In an embodiment of the invention, the bottom face comprises a coupling side configured for being coupled with a lower end of the appliance upon assembling of the cabinet panel, the coupling side comprising at least one recess defining said auxiliary passage, upon said coupling.

[0016] Preferably, the lower end of the appliance is formed by a basement portion on which the cabinet is mounted.

[0017] In one embodiment the laundry treating appliance further comprises floor-resting feet for lifting the appliance from the floor, the auxiliary ambient air being allowed to flow to the auxiliary air passage through the gap formed between the bottom face of the cabinet panel and the floor.

[0018] Preferably, the air passage comprises a plurality of through-holes.

[0019] In another embodiment the laundry treating appliance implements laundry drying functions, the appliance further comprising a drying chamber for housing a laundry load to be dried, the appliance being configured for causing process air to flow through the drying chamber thereby allowing moisture absorption from the laundry load housed therein; the appliance comprises a moisture condensing unit for condensing the moisture absorbed by the process air from said laundry load, and a collection tank for collecting the moisture condensed by the moisture condensing unit.

[0020] Preferably the front panel of the cabinet comprises, at a lower portion thereof, a manually-removable access member for allowing the condensing unit to be accessed for maintenance operations thereof, said air passage being provided on the access member thereby defining an air grid thereof.

[0021] In one embodiment the moisture condensing unit comprises an air-air heat exchanger, the air passage and the auxiliary air passage being in fluid communication with a flow path that passes ambient air through the air-air heat exchanger.

[0022] In another embodiment the moisture condensing unit comprises an evaporator member of a heat pump device, at least part of the ambient air and the auxiliary ambient air acting as cooling air for cooling down components of the heat pump device.

[0023] In a further embodiment the laundry treating appliance comprises a first air passage allowing ambient air to enter the appliance and a second air passage allowing ambient air to exit the appliance, the first and second air passages being provided on a front face of one of the cabinet panels, said appliance being further provided with first and second auxiliary air passages formed on a bottom face of the same cabinet panel for respectively allowing auxiliary ambient air to enter and exit the appliance from below.

[0024] Thanks to the present invention, the amount of air able to enter the laundry dryer and exit therefrom is significantly increased without impairing the air grid area, and hence the aesthetical requirements of the laundry dryer. This also leads to faster cooling and/or de-moisturizing processes, which in turn improves performance of the laundry dryer - as the drying operation times become effective, thus shorter and power saving - as well as reliability thereof - as the operative components may be prevented from operating in overheating conditions for long period of use. Moreover, the present invention may also be applied to modern and high performance laundry dryers featuring large and capacious drying chambers, which need increased air flows.

Brief Description of the Drawings

[0025] These and other features and advantages of the solution according to one or more embodiments of the invention will be best understood with reference to the following detailed description, given purely by way of a non-restrictive indication, to be read in conjunction with the accompanying drawings (wherein corresponding elements are denoted with equal or similar references, and their explanation is not repeated for the sake of exposition brevity). In this respect, it is expressly understood that the figures are not necessarily drawn to scale (with some details that may be exaggerated and/or simplified) and that, unless otherwise indicated, they are simply used to conceptually illustrate the described structures and procedures. In particular:

Figure 1 shows a perspective view with partially removed parts of a laundry treating appliance according to an embodiment of the present invention;
Figure 2 shows a close-up view of the laundry treating appliance of **Figure 1,** and
Figures 3A and **3B** show cross-sectional views of a portion of the laundry treating appliance along the **IIIA-IIIA** axis and the **IIIB-IIIB** axis, respectively, of **Figure 1.**

[0026] With reference to the drawings, **Figure 1** shows a partly exploded perspective view of a laundry treating appliance **100,** for example for domestic use, according to an embodiment of the present invention. In the considered example, the laundry treating appliance **100** is a laundry dryer (as generically illustrated in the figure, and to which reference will be made in the following by way of non-limiting example only), but the principle of the present invention may also be applied to any other laundry treating appliance generally configured for performing laundry drying operations - such as a washer-dryer, or the like.

[0027] The laundry dryer **100,** *e.g.* a condensation laundry dryer, comprises a substantially parallepiped-shaped cabinet **105** having a front panel $\mathbf{105_F}$, a rear panel (not visible in the figures), two side panels $\mathbf{105_S}$ (only one visible in the figures), a top panel $\mathbf{105_T}$, and a

bottom panel (the latter, not shown, for bottom closing the laundry dryer **100).** As usual for the condensation laundry dryers, the cabinet **105** encloses an inner compartment that accommodates a drying chamber (*e.g.* a rotating drum), not visible, for housing a laundry load to be dried, and accessible through an access door **110** (shown in a closed configuration) provided on the front panel $\mathbf{105_F}$ of the cabinet **105** for loading/unloading the laundry load.

[0028] The inner compartment also accommodates mechanical, electro-mechanical, electric and electro-hydraulic components, generally configured for allowing operation of the laundry dryer **100** (thus, referred to hereinafter as operative components) - *e.g.*, for causing process air to flow through the drying chamber thereby allowing moisture absorption from the laundry load housed therein, condensing the moisture absorbed by the process air, cooling down the components and/or the like.

[0029] In order to illustrate the principles of the present invention, only relevant components of the laundry dryer **100** directly or indirectly involved in process air de-moisturizing process will be introduced and discussed in the following (however, as will be discussed in the following, the same principles also apply to other processes, *e.g.* operative components cooling down). Moreover, for the sake of conciseness and clarity, **Figure 1** will be discussed together with **Figure 2,** which shows a close-up view of the laundry dryer **100,** and with **Figures 3A** and **3B,** the latter schematically showing cross-sectional views of a portion of the laundry dryer **100** along the **IIIA-IIIA** axis and the **IIIB-IIIB** axis, respectively, of **Figure 1.**

[0030] The exemplary laundry dryer **100** herein considered comprises a moisture condensing unit, or condensing unit, **115** for condensing the process air moisture, and a manually-extractable collection tank **120** for collecting the condensed moisture thereinto (thereby allowing periodic emptying thereof by a user).

[0031] Because of the chosen view-points, the condensing unit **115** is not visible in the figures, however, in order to at least conceptually illustrate arrangement thereof within the laundry dryer **100,** the condensing unit **115** is shown in **Figure 3B** through dashed lines. Moreover, as visible in such figure, the condensing unit **115** is illustrated as a generic functional block, as the implementation thereof is not limiting for the present invention. In this respect, as known, the condensing unit **115** may comprise either an evaporator member of a heat pump device or, as will be exemplarily assumed hereinafter by way of example only, an air-air heat exchanger, which makes use of ambient air as de-moisturizing air.

[0032] According to a known, not limiting configuration, the condensing unit **115** is housed within a base **125** (whose lower portion only is visible in **Figure 1),** typically together with some or all the operative components.

[0033] The base **125,** and hence the condensing unit **115** and the operative components housed therein, are accessible (*e.g.*, for maintenance operations, such as fluff cleaning) by means of a manually-removable (*e.g.*, openable) access member $\mathbf{105_{AM}}$ provided at a lower portion of the front panel $\mathbf{105_F}$.

[0034] As best visible in **Figures 1** and **2,** the access member $\mathbf{105_{AM}}$ is provided with air inlets $\mathbf{130_{IN}}$ and air outlets $\mathbf{130_{OUT}}$ for allowing ambient air to enter the laundry dryer **100,** and corresponding discard air to exit it, respectively. As will be best understood by the following description, such air inlets $\mathbf{130_{IN}}$ and air outlets $\mathbf{130_{OUT}}$ identify inlet and outlet sections, respectively, of a lowest strip-like part of the access member $\mathbf{105_{AM}}$ or air grid.

[0035] Broadly speaking, such air inlets $\mathbf{130_{IN}}$ and air outlets $\mathbf{130_{OUT}}$ are in fluid communication with corresponding inner compartment regions where action of the ambient air requested. In the example herein considered wherein the laundry dryer **100** has been assumed has having an air-air heat exchanger-based condensing unit **115,** the air inlets $\mathbf{130_{IN}}$ and the air outlets $\mathbf{130_{OUT}}$ are in fluid communication (*e.g.*, through corresponding ducts of the base **125,** not shown) with an input and an output, respectively, of the condensing unit **115,** *i.e.* with a flow path passing ambient air through the condensing unit **115.** In this way, the ambient air, after being passed through the air inlets $\mathbf{130_{IN},}$ is channeled or piped (at least partly) to the input of the condensing unit **115** for promoting the de-moisturizing process of the moisture-laden process air (from the drying chamber), whereas the discard air - in the case at issue, the ambient air affected by (*i.e.,* heated-up as a consequence of) such de-moisturizing process - from the output of the condensing unit **115** is channeled or piped (at least partly) for being vented outside the laundry dryer **100** through the air outlets $\mathbf{130_{OUT}}$.

[0036] This is conceptually represented in **Figures 3A** and **3B** by the incoming arrows identifying the de-moisturizing air flow and globally denoted by the reference $\mathbf{A_{F,IN}}$, and by the outcoming arrows identifying the discard air flow and globally denoted by the reference $\mathbf{A_{F,OUT}}$, respectively.

[0037] Thus, the air inlets $\mathbf{130_{IN},}$ the input of the condensing unit **115,** the output of the condensing unit **115,** and the air outlets $\mathbf{130_{OUT}}$ define, as a whole, a de-moisturizing/discard air circuit of the laundry dryer **100.**

[0038] As discussed in the introductory part of the present description, the air grid as described above is not satisfactory in terms of amount of ambient air able to enter the laundry dryer **100** and discard air able to exit therefrom. In fact, the air grid area is not susceptible to be discretionally increased in size in order to not impair aesthetical requirements of the laundry dryer **100.** Such an insufficient amount of air entering and/or exiting the laundry dryer may lead to a slower de-moisturizing process, which in turn may pose performance issues of the overall laundry dryer **100** (as the drying operation times of the laundry dryer **100** become less effective, thus longer and electric power wasting) as well as reliability issues.

[0039] According to the present invention, the access member $\mathbf{105_{AM}}$ is also configured such as to allow auxiliary ambient air (see incoming arrows $\mathbf{A_{F,INaux}}$ in **Fig-**

ures 1 and **3A)** and auxiliary discard air (see outcoming arrows $\mathbf{A_{F,OUTaux}}$ in **Figures 1** and **3B)** to flow from below the laundry dryer **100,** *i.e.* from a surface of the appliance facing the floor.

[0040] In order to achieve that, as can be best appreciated in **Figures 2, 3A** and **3B,** a bottom face **135** of the front panel $\mathbf{105_F}$ (also corresponding to the bottom face of the access member $\mathbf{105_{AM}}$ facing the floor upon installation of the laundry dryer **100)** comprises one or more auxiliary air inlets, such as the exemplarily illustrated auxiliary air inlet $\mathbf{130_{INaux}}$ and one or more auxiliary air outlets, such as the exemplarily illustrated auxiliary air outlet $\mathbf{130_{OUTaux}}$ for allowing the auxiliary ambient air $\mathbf{A_{F,INaux}}$ and the auxiliary discard air $\mathbf{A_{F,OUTaux}}$ to enter and exit, respectively, the appliance from below.

[0041] Preferably, although not necessarily, this is obtained by properly shaping a coupling side of the bottom face **135** intended to be coupled with a corresponding lower end of the laundry dryer **100** upon assembling of the front panel $\mathbf{105_F}$**.** Said lower end may be formed by a basement portion on which the cabinet **105** is mounted. In the disclosed embodiment, such coupling side comprises one or more, *e.g.* two recesses, each one defining a corresponding air passage upon front panel $\mathbf{105_F}$ assembling. More particularly, an inlet recess is provided along the coupling side of the bottom face **135** belonging to the inlet section of the air grid, and an outlet recess is provided along the coupling side of the bottom face **135** belonging to the outlet section of the air grid, with such inlet recess and outlet recess that define the auxiliary air inlet $\mathbf{130_{INaux}}$ and the auxiliary air outlet $\mathbf{130_{OUTaux}}$**,** respectively, upon said assembling.

[0042] As visible in **Figures 3A** and **3B,** the auxiliary air inlet $\mathbf{130_{INaux}}$ and the auxiliary air outlet $\mathbf{130_{OUTaux}}$ are in fluid communication with the air inlets $\mathbf{130_{IN}}$ and the air outlets $\mathbf{130_{OUT}}$**,** respectively, and hence with the input and output of the condensing unit **115.**

[0043] In order to promote said air passage through the auxiliary air inlet $\mathbf{130_{INaux}}$ and the auxiliary air outlet $\mathbf{130_{OUTaux}}$**,** the laundry dryer **100** is configured such that the front panel $\mathbf{105_F}$ (and hence the bottom face **135** thereof) is slightly lifted with respect to the floor. For example, in the disclosed embodiment, the laundry dryer **100** comprises floor-resting feet **140** (only one illustrated in the figures for the sake of representation ease), which slightly lift the laundry dryer **100** from the floor. Thus, as can be best appreciated in **Figures 3A** and **3B** the auxiliary ambient air $\mathbf{A_{F,INaux}}$ and the auxiliary discard air $\mathbf{A_{F,OUTaux}}$ is allowed to flow to the auxiliary air inlet $\mathbf{130_{INaux}}$ and from the auxiliary air outlet $\mathbf{130_{OUTaux}}$**,** respectively, through the gap between the bottom face **135** of the front panel $\mathbf{105_F}$ and the floor.

[0044] Thanks the present invention, the total incoming ambient air is given by the sum of the ambient air $\mathbf{A_{F,IN}}$ with the auxiliary ambient air $\mathbf{A_{F,INaux}}$**,** whereas the total outcoming discard air is given by sum of the discard air $\mathbf{A_{F,OUT}}$ with the auxiliary discard air $\mathbf{A_{F,OUTaux}}$**.** Thus, the amount of air able to enter the laundry dryer and exit the laundry dryer **100** (and the condensing unit **115,** in the example at issue) is significantly increased, which leads to faster de-moisturizing process, and hence to drying operation time more effective, shorter and power saving. It should be noted that such result has been achieved simply and without impairing aesthetical requirements of the laundry dryer **100,** as the air grid area can be the same as that of the presently marketed laundry dryers. Moreover, the present invention may also be applied to modern and high performance laundry dryers featured by large and capacious drying chambers, which need increased air flow.

[0045] According to a further advantageous embodiment of the present invention, such air inlets $\mathbf{130_{IN}}$ and air outlets $\mathbf{130_{OUT}}$ comprise, as shown in **Figures 1** and **2,** a plurality of through-holes provided on a lower portion of the access member $\mathbf{105_{AM}}$**.** The illustrated arrangement and size of the through-holes should not be construed limitatively, as they may be chosen according to specific design parameters to be met. For example, as illustrated, the through-holes may be in staggered configuration, and arranged by increasing size from the top of the air grid (*i.e.,* the most visible portion of the access member $\mathbf{105_{AM}}$**)** to the bottom thereof (*i.e.,* the less visible one). As further increasing air flow allowed to enter and exit the laundry dryer **100** compared to conventional air grids provided with parallel, horizontal slots, such solution may also permit air grid area reduction.

[0046] Naturally, in order to satisfy local and specific requirements, a person skilled in the art may apply to the solution described above many logical and/or physical modifications and alterations. More specifically, although the present invention has been described with a certain degree of particularity with reference to preferred embodiments thereof, it should be understood that various omissions, substitutions and changes in the form and details as well as other embodiments are possible. In particular, different embodiments of the invention may even be practiced without the specific details (such as the numeric examples) set forth in the preceding description for providing a more thorough understanding thereof; on the contrary, well known features may have been omitted or simplified in order not to obscure the description with unnecessary particulars. Moreover, it is expressly intended that specific elements and/or method steps described in connection with any disclosed embodiment of the invention may be incorporated in any other embodiment as a matter of general design choice.

[0047] For example, analogous considerations apply if the laundry treating appliance has a different structure or comprises equivalent components, or it has other operating features. In any case, any component thereof may be separated into several elements, or two or more components may be combined into a single element; in addition, each component may be replicated for supporting the execution of the corresponding operations in parallel. It should also be noted that any interaction between different components generally does not need to be con-

tinuous (unless otherwise indicated), and it may be both direct and indirect through one or more intermediaries.

[0048] Although in the present description the air inlets, the air outlets, the auxiliary air inlet and the auxiliary air outlet have been described as provided on the front face of the cabinet front panel, this should not be construed limitatively; by way of example only, it is possible to provide implementations wherein the air inlets and/or the air outlets, the auxiliary air inlet and/or the auxiliary air outlet are arranged on the cabinet side panels, including the top and the rear cabinet panels.

[0049] Moreover, the auxiliary air inlets and the auxiliary air outlets, as well as the corresponding recesses, may be in any number and shape without affecting the principles of the present invention. In this respect, nothing prevents from forming the auxiliary air inlets and the auxiliary air outlets as holes (instead of recesses) already provided on the bottom face of the front panel (hence, not defined upon assembling only), or with any other implementations, *e.g.*, also taking into account different front panel assembling ways.

[0050] As should be readily understood, the floor-resting feet may also be not provided, or they have very small size. In such cases, in order to allow efficient flowing of auxiliary ambient air and auxiliary discard air, the bottom face of the front panel and/or the bottom panel may be shaped such as to define the gap with the floor.

[0051] Although in the foregoing a laundry treating appliance of the top tank type has been illustrated, the same considerations equivalently apply to a laundry treating appliance of the bottom tank type; in such case, the access member, the air grid, the auxiliary air inlets and auxiliary air outlets may also have different implementations and/or arrangements, however all falling within the scope of the present invention.

[0052] Finally, although in the present description explicit reference has been made to a laundry treating appliance whose moisture removal from the process air is carried out by means of an air-air heat exchanger, the principles of the present invention apply to any other moisture condensing unit suitable for the purpose (*e.g.*, the moisture condensing unit may be an evaporator member of a heat pump device). In such case, the ambient air may be used mainly as cooling air for cooling down operative components responsible for operation of the appliance (thereby ensuring a correct and reliable operation thereof).

[0053] Anyway, nothing prevents from using the ambient air as cooling air in air-air heat exchanger-based laundry treating appliances as well. For example, an embodiment of the invention may provide that part of the total incoming ambient air is channelled towards the air-air heat exchanger for being used as de-moisturizing air, whereas another part thereof is channelled towards the operative components for being used as cooling air.

Claims

1. Laundry treating appliance **(100)** comprising:

   a cabinet **(105)** formed by panels **(105_F, 105_S 105_T),**
   an air passage (**130_{IN}**, **130_{OUT}**) provided on a front face of a cabinet panel **(105_F, 105_S 105_T)** for allowing ambient air **($A_{F,IN}$ $A_{F,OUT}$)** to enter or exit the appliance,
   characterized in that
   a bottom face **(135)** of said cabinet panel **(105_F, 105_S 105_T)** further comprises at least one auxiliary air passage (**130_{INaux}**, **130_{OUTaux}**) for allowing auxiliary ambient air **($A_{F,INaux}$, $A_{F,OUTaux}$)** to enter or exit the appliance from below.

2. Laundry treating appliance according to Claim 1, wherein the bottom face **(135)** comprises a coupling side configured for being coupled with a lower end of the appliance upon assembling of the cabinet panel **(105_F, 105_S 105_T)**, the coupling side comprising at least one recess defining said auxiliary passage **(130_{INaux}, 130_{OUTaux}),** upon said coupling.

3. Laundry treating appliance according to Claim 2, wherein the lower end of the appliance is formed by a basement portion on which the cabinet **(105)** is mounted.

4. Laundry treating appliance according to any of the preceding Claims, further comprising floor-resting feet **(140)** for lifting the appliance from the floor, the auxiliary ambient air **($A_{F,INaux}$, $A_{F,OUTaux}$)** being allowed to flow to the auxiliary air passage **(130_{INaux}, 130_{OUTaux})** through the gap formed between the bottom face of the cabinet panel **(105_F, 105_S)** and the floor.

5. Laundry treating appliance according to any of the preceding Claims, wherein the air passage **(130_{IN}, 130_{OUT})** comprises a plurality of through-holes.

6. Laundry treating appliance according to any of the preceding Claims, wherein the appliance implements laundry drying functions, the appliance further comprising:

   a drying chamber for housing a laundry load to be dried, the appliance being configured for causing process air to flow through the drying chamber thereby allowing moisture absorption from the laundry load housed therein,
   a moisture condensing unit **(115)** for condensing the moisture absorbed by the process air from said laundry load, and
   a collection tank **(120)** for collecting the moisture

condensed by the moisture condensing unit.

7. Laundry treating appliance according to Claim 6, wherein the front panel **(105_F)** of the cabinet **(105)** comprises, at a lower portion thereof, a manually-removable access member **(105_{AM})** for allowing the condensing unit **(115)** to be accessed for maintenance operations thereof, said air passage **(130_{IN}, 130_{OUT})** being provided on the access member **(105_{AM})** thereby defining an air grid thereof.

8. Laundry treating appliance according to Claim 6 or 7, wherein the moisture condensing unit **(115)** comprises an air-air heat exchanger, the air passage **(130_{IN}, 130_{OUT})** and the auxiliary air passage **(130_{INaux}, 130_{OUTaux})** being in fluid communication with a flow path that passes ambient air through the air-air heat exchanger.

9. Laundry treating appliance according to Claim 6, wherein the moisture condensing unit **(115)** comprises an evaporator member of a heat pump device, at least part of the ambient air and the auxiliary ambient air acting as cooling air for cooling down components of the heat pump device.

10. Laundry treating appliance **(100)** according to any preceding claim comprising a first air passage **(130_{IN})** allowing ambient air **($A_{F,IN}$)** to enter the appliance and a second air passage **(130_{OUT})** allowing ambient air **($A_{F,OUT}$)** to exit the appliance, the first and second air passages being provided on a front face of one of the cabinet panels **(105_F, 105_S 105_T)**, said appliance being further provided with first and second auxiliary air passages **(130_{INaux}, 130_{OUTaux})** formed on a bottom face of the same cabinet panel **(105_F, 105_S 105_T)** for respectively allowing auxiliary ambient air **($A_{F,INaux}$, $A_{F,OUTaux}$)** to enter and exit the appliance from below.

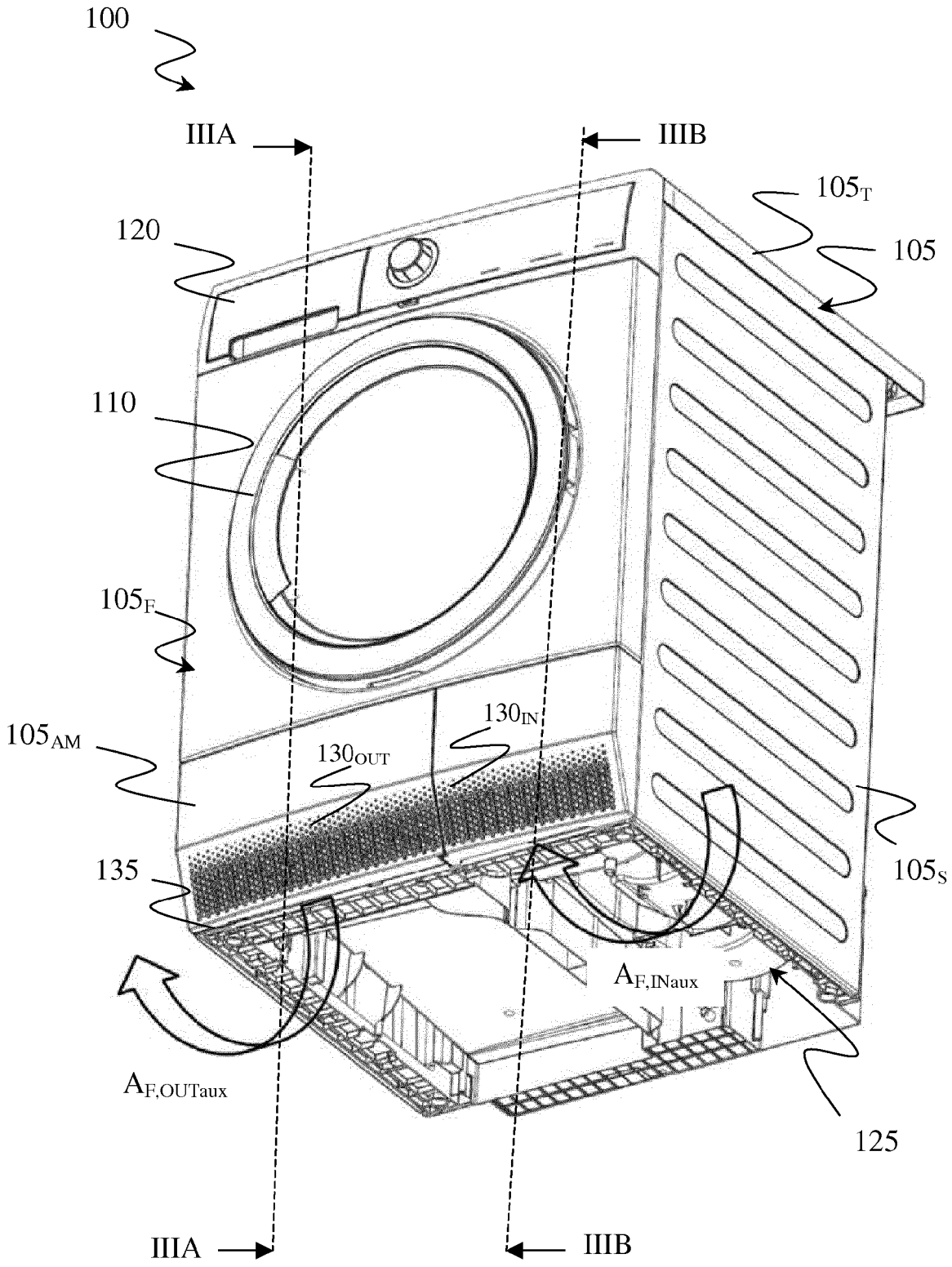
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FIG.1

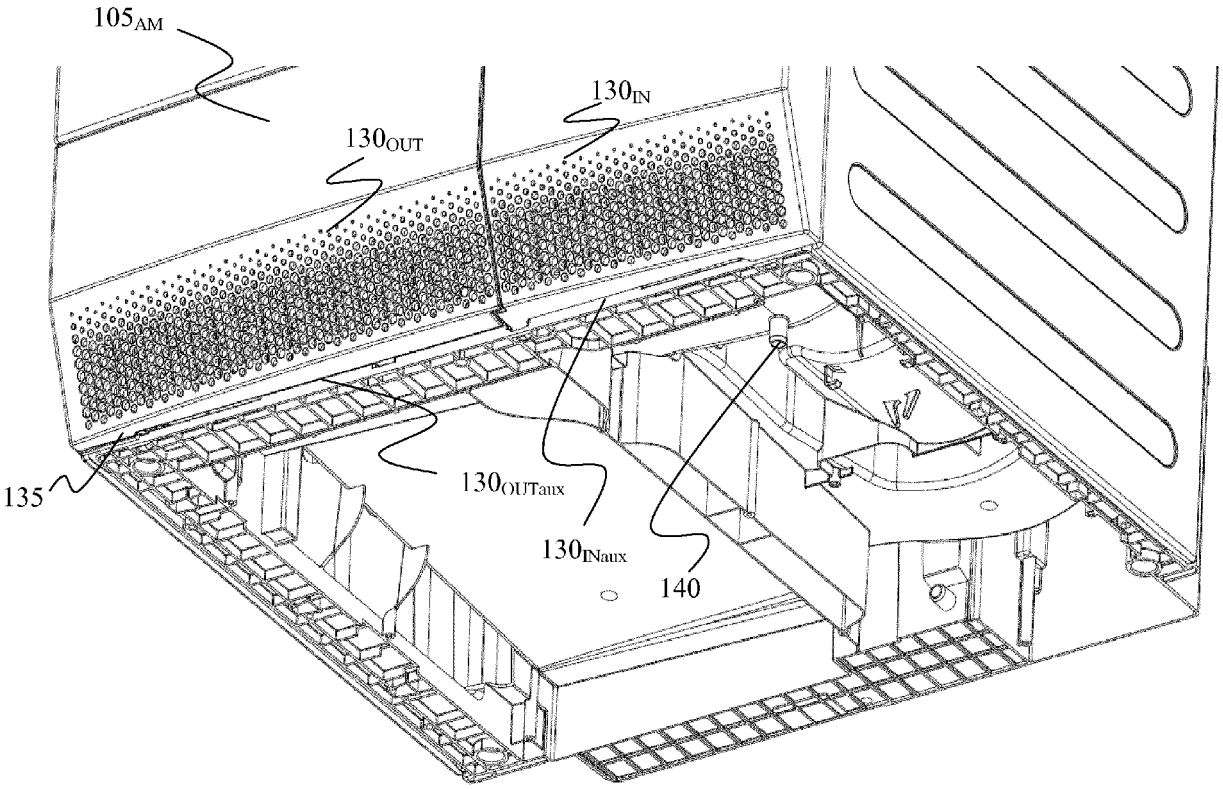

FIG.2

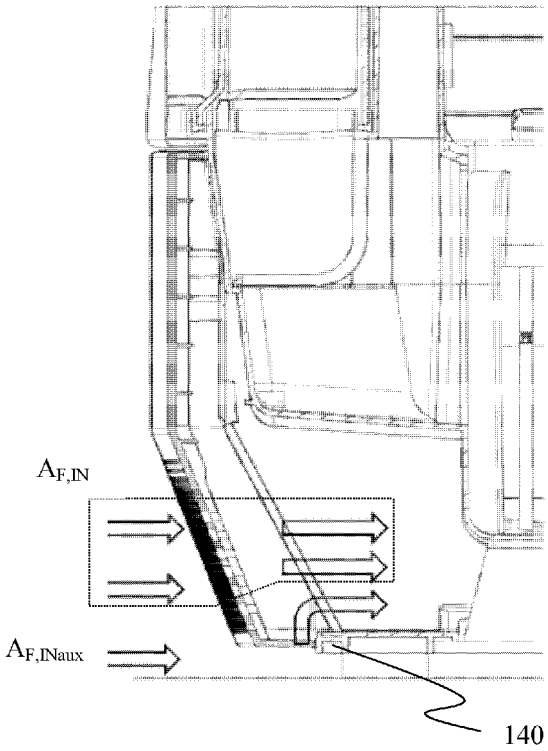

FIG.3A

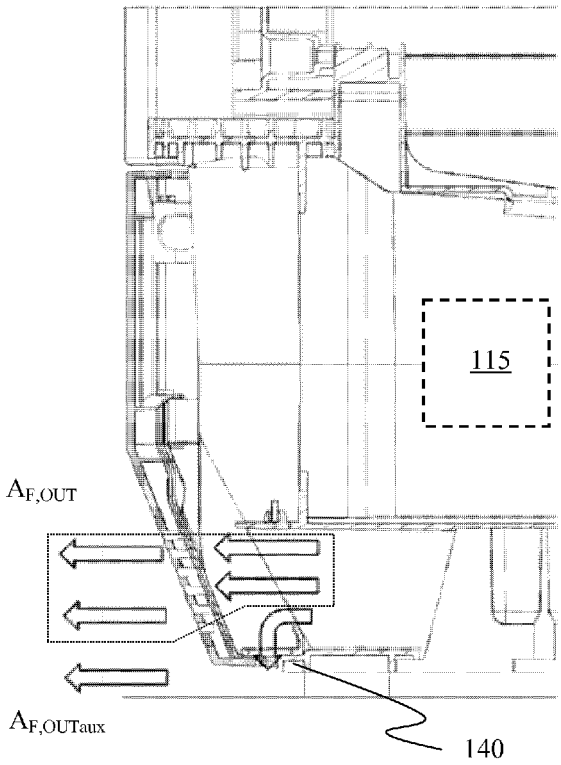

FIG.3B

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EUROPEAN SEARCH REPORT

Application Number
EP 12 18 7788

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