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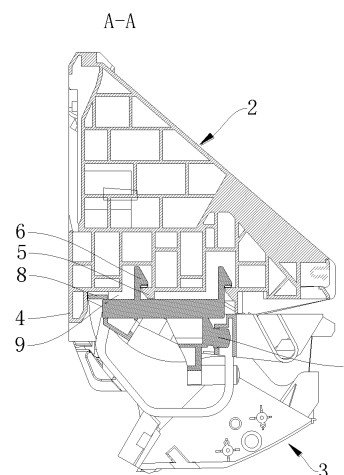
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(54) **AIR CONDITIONER BASE AND AIR CONDITIONER**

(57) An air conditioner base and an air conditioner are provided in the present invention, which relate to the field of air conditioners. The air conditioner includes the air conditioner base. The air conditioner base of the present invention includes an upper base and a lower base. A first limit block and at least one first hook are disposed on the upper base. A slidable buckle is disposed on the lower base, and at least one second hook is disposed on the buckle. The first hook is engaged with or separated from the second hook, and the first limit block is used to limit a pressing distance of the buckle. The air conditioner base can make the assembly and disassembly of the upper base and the lower base simple and reliable.



**Fig. 3**

**Description****FIELD OF THE INVENTION**

5     **[0001]** The present invention relates to the technical field of air conditioners, in particular to an air conditioner base and an air conditioner.

**BACKGROUND OF THE INVENTION**

10    **[0002]** The existing detachable air conditioner has a base divided into an upper base and a lower base, wherein the upper base is detachably connected to the lower base. Usually, the upper base is connected to the lower base with buckles. However, during the disassembly of the upper base from the lower base, the movement of the buckles on the lower base may easily move too far when moving on the lower base, which causes the buckles to retract into the lower base and to be unable to be sprung out, or the buckles are directly disengaged from the lower base, which causes the  
 15    buckle parts to be damaged or lost, thereby generating difficulties in assembly the upper base and the lower base again.  
**[0003]** Therefore, designing an air conditioner base to make the assembly and disassembly of the upper base and the lower base simple and reliable is a technical problem to be solved urgently.

**SUMMARY OF THE INVENTION**

20    **[0004]** In view of this, an air conditioner base and an air conditioner are proposed in the present invention, which can make the assembly and disassembly of the upper base and the lower base simple and reliable.  
**[0005]** To achieve the above purpose, the technical solution of the present invention is implemented as follows.  
**[0006]** An air conditioner includes an upper base and a lower base. A first limit block and at least one first hook are  
 25    disposed on the upper base. A slidable buckle is disposed on the lower base, and at least one second hook is disposed on the buckle. The first hook is engaged with or separated from the second hook, and the first limit block is used to limit a pressing distance of the buckle.  
**[0007]** Further, a sliding direction of the buckle is a front-back direction of the lower base, and the first limit block is disposed at a rear position of the upper base.  
 30    **[0008]** Further, a second limit block is disposed on the lower base, the second limit block is opened with a through hole, and a rear end of the buckle is inserted into the through hole.  
**[0009]** Further, after the upper base is assembled with the lower base, the second limit block abuts against a front side of the first limit block.  
**[0010]** Further, a third limit block is disposed on the upper base. After the upper base is assembled with the lower  
 35    base, the second limit block abuts against a rear side of the third limit block.  
**[0011]** Further, a left end and a right end of the upper base are respectively provided with a fourth limit block, and a left end and a right end of the lower base are respectively provided with a fifth limit block. After the upper base is assembled with the lower base, at least one fifth limit block abuts against a left side of one fourth limit block, and at least one fifth limit block abuts against a right side of one fourth limit block.  
 40    **[0012]** Further, a left end and a right end of the upper base are respectively provided with a fourth limit block, and a left end and a right end of the lower base are respectively provided with a fifth limit block. After the upper base is assembled with the lower base, at least one fifth limit block abuts against a right side of one fourth limit block, and at least one fifth limit block abuts against a left side of one fourth limit block.  
**[0013]** Further, a left end and a right end of the upper base are respectively provided with a limit notch, and a left end  
 45    and a right end of the lower base are respectively provided with the fifth limit block (11). After the upper base is assembled with the lower base, the fifth limit block is located in the limit notch.  
**[0014]** Further, the limit notch limits a left-right movement of the fifth limit block.  
**[0015]** An air conditioner includes the above-mentioned air conditioner base.  
**[0016]** Compared to the prior art, the air conditioner base and the air conditioner of the disclosure have the following  
 50    advantages:

1. At least one first hook is disposed on the upper base, slidable buckles are disposed on the lower base, and at least one second hook are disposed on the buckles, so that the first hook is automatically latched with the second hook after the upper base is assembled with the lower base. Pressing the buckles separates the first hook from the  
 55    second hook, so that the upper base is disengaged from the lower base, thereby facilitating the assembly and disassembly of the upper base and the lower base.

2. A first limit block is disposed on the upper base, and the first limit block is used to limit a pressing distance of the

buckles, such that the buckles are not retracted into the interior of the lower base and hence may not be ejected, and such that the buckles are not disengaged from the lower base, thereby ensuring that the buckles and the second hook are intact, and the upper base and the lower base are easy to assemble again and are safe.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0017] Aspects of the present invention are best understood from the following detailed description when read with the accompanying figures. The exemplary embodiments of the present invention and the description thereof are used to explain the present invention, and do not constitute improper limitations on the present invention. In the drawings:

Fig. 1 is an exploded structural diagram of an air conditioner base according to a first embodiment of the present invention.

Fig. 2 is an assembly structural diagram of an air conditioner base according to a first embodiment of the present invention.

Fig. 3 is a cross-sectional structural view taken along a line A-A in Fig. 2.

Fig. 4 is a cross-sectional structural view taken along a line B-B in Fig. 2.

[0018] List of serial numbers in the figures:

|                           |                         |                        |
|---------------------------|-------------------------|------------------------|
| 1 - Air conditioner base; | 2 - Upper base;         | 3 - Lower base;        |
| 4 - First limit block;    | 5 - First hook;         | 6 - Second hook;       |
| 7 - Buckle;               | 8 - Second limit block; | 9 - Third limit block; |
| 10 - Fourth limit block;  | 11 - Fifth limit block. |                        |

## DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0019] It should be noted that, in the case of no conflicts, the embodiments and features in the embodiments of the present invention can be combined mutually.

[0020] The present invention is described in detail with reference to drawings and with combination of embodiments.

### 1<sup>st</sup> Embodiment

[0021] With reference to Figs. 1 to 3, the present embodiment provides an air conditioner base 1, the air conditioner base 1 including an upper base 2 and a lower base 3.

[0022] A first limit block 4 and at least one first hook 5 are disposed on the upper base 2, wherein the first hook 5 has two hooks. A slidable buckle 7 is disposed on the lower base 3, and a second hook 6 is disposed on the buckle 7, wherein the second hook 6 has two hooks. The first hook 5 is engaged with or separated from the second hook 6, and when the first hook 5 is engaged with the second hook 6, the upper base 2 is assembled with the lower base 3 to form a unity. When the first hook 5 is separated from the second hook 6, the upper base 2 is disassembled with the lower base 3.

[0023] A sliding direction of the buckle 7 is a front-back direction of the lower base 3, and the first limit block 4 is disposed at a rear position of the upper base 2. The first limit block 4 is used to limit a pressing distance of the buckle 7. The front-back direction here refers to the direction perpendicular to the wall surface after the air conditioner base 1 is mounted on the wall. The direction in which the air conditioner base 1 is away from the wall surface is the forward direction, and the direction in which the air conditioner base 1 is close to the wall surface is the back direction.

[0024] With reference to Fig. 3, pressing the buckle 7 from right to left gradually separates the first hook 5 from the second hook 6 until the left end of the buckle 7 abuts against the first limit block 4, then the pressing distance of the buckle 7 reaches a maximum value, at which time the buckle 7 is not retracted into the inside of the lower base 3 completely, and the pressed part of the buckle 7 also protrudes from the lower base 3. In this way, it is advantageous for the buckle 7 to be reset under the elastic force of the spring, and convenient to operate when reassembling or separating.

[0025] If there is no first limit block 4, the process of pressing the buckle 7 may easily cause the buckle 7 to move too far until retracting into the lower base 3, which causes the buckle 7 to be unable to be accurately reset, and the position of the buckle 7 must be manually adjusted, which is time consuming and laborious, and inconvenient to operate.

[0026] A second limit block 8 is disposed on the lower base 3, the second limit block 8 is opened with a through hole, and a rear end of the buckle 7 is inserted into the through hole. In this way, the through hole may guide the buckle 7.

[0027] After the upper base 2 is assembled with the lower base 3, the second limit block 8 abuts against a front side of the first limit block 4, as shown in Fig. 3, the second limit block 8 abuts against a right side of the first limit block 4. In

this way, the first limit block 4 limits a backward movement of the second limit block 8, i.e., the upper base 2 limits a backward movement of the lower base 3. Preferably, the first limit block 4 is provided with an inclined plane, and the inclined plane serves as a guide for the second limit block 8, so as to facilitate the cooperation between the second limit block 8 and the first limit block 4.

**[0028]** The upper base 2 is further provided with a third limit block 9, the third limit block 9 is disposed with the first limit block 4 at intervals, and a gap between the third limit block 9 and the first limit block 4 cooperates with the second limit block 8 on the lower base 3. After the upper base 2 is assembled with the lower base 3, the second limit block 8 abuts against a rear side of the third limit block 9, as shown in Fig. 3, the second limit block 8 abuts against a left side of the third limit block 9. In this way, the third limit block 9 limits a forward movement of the second limit block 8, i.e., the upper base 2 limits a forward movement of the lower base 3. Therefore, the first limit block 4 and the third limit block 9 on the upper base 2 cooperate with the second limit block 8 on the lower base 3 to achieve a limitation on the front-back movement of the upper base 2 with respect to the lower base 3.

**[0029]** With reference to Fig. 4, a left end and a right end of the upper base 2 are respectively provided with a fourth limit block 10, and a left end and a right end of the lower base 3 are respectively provided with a fifth limit block 11; after the upper base 2 is assembled with the lower base 3, at least one fifth limit block 11 abuts against a left side of one fourth limit block 10, and at least one fifth limit block 11 abuts against a right side of one fourth limit block 10. In this way, a limitation on the left-right direction of the upper base 2 with respect to the lower base 3 is achieved.

**[0030]** In other embodiments, a limitation on the left-right direction of the upper base 2 with respect to the lower base 3 may also be achieved in other manners. For example, a left end and a right end of the upper base 2 are respectively provided with a fourth limit block 10, and a left end and a right end of the lower base 3 are respectively provided with a fifth limit block 11; after the upper base 2 is assembled with the lower base 3, at least one fifth limit block 11 abuts against a right side of one fourth limit block 10, and at least one fifth limit block 11 abuts against a left side of one fourth limit block 10. Or, a left end and a right end of the upper base 2 are respectively provided with a limit notch, and a left end and a right end of the lower base 3 are respectively provided with the fifth limit block 11; after the upper base 2 is assembled with the lower base 3, the fifth limit block 11 is located in the limit notch, and the limit notch limit a left-right movement of the fifth limit block 11, thereby similarly achieving the limitation of the upper base 2 on the lower base 3 in the left-right direction.

**[0031]** The air conditioner base 1 provided by the embodiment of the disclosure has the following advantages:

1. At least one first hook 5 is disposed on the upper base 2, and a slidable buckle 7 is disposed on the lower base 3, and at least one second hook 6 is disposed on the buckle 7, so that the first hook 5 is automatically latched with the second hook 6 after the upper base 2 is assembled with the lower base 3. Pressing the buckle 7 separates the first hook 5 from the second hook 6, so that the upper base 2 is separated from the lower base 3, which facilitates the disassembly and assembly of the upper base 2 and the lower base 3.

2. A first limit block 4 is disposed on the upper base 2, and the first limit block 4 is used to limit a pressing distance of the buckles 7 such that the buckles 7 may not be retracted into the interior of the lower base 3 and hence may not be ejected, and such that the buckles 7 may not be disengaged from the lower base 3, thereby ensuring that the buckles 7 and the second hook 6 are intact, and the upper base 2 and the lower base 3 are easy to assemble again and are safe.

3. The first limit block 4 and the third limit block 9 on the upper base 2 cooperate with the second limit block 8 on the lower base 3 to achieve a limitation on the front-back movement of the upper base 2 with respect to the lower base 3.

4. A left end and a right end of the upper base 2 are respectively provided with a fourth limit block 10, and a left end and a right end of the lower base 3 are respectively provided with a fifth limit block 11, wherein the fourth limit block 10 cooperates with the fifth limit block 11 to achieve the limitation of the upper base 2 on the lower base 3 in the left-right direction.

## 2<sup>nd</sup> Embodiment

**[0032]** The present embodiment provides an air conditioner, the air conditioner including the air conditioner base 1 provided in 1<sup>st</sup> Embodiment. The upper base 2 and the lower base 3 of the air conditioner are easy to assemble and disassemble, will not damage the connecting parts, and may be disassembled multiple times. And, the upper base 2 and the lower base 3 are firmly positioned with each other, and no movement or looseness occurs, so that the safety and reliability are good.

**[0033]** The above are only the preferred embodiments of the present invention and are not intended to limit the present invention. Any modification, equivalent replacement, or improvement made within the spirit of the present invention shall be included in the protection scope of the present invention.

## Claims

1. An air conditioner base, **characterized in that**, the air conditioner base comprises:

an upper base (2), a first limit block (4) and at least one first hook (5) are disposed on the upper base (2); and a lower base (3), a slidable buckle (7) disposed on the lower base (3), and at least one second hook (6) disposed on the buckle (7);  
wherein the first hook (5) is engaged with or separated from the second hook (6), and the first limit block (4) is used to limit a pressing distance of the buckle (7).

2. The air conditioner base according to claim 1, wherein a sliding direction of the buckle (7) is a front-back direction of the lower base (3), and the first limit block (4) is disposed at a rear position of the upper base (2).

3. The air conditioner base according to claim 2, wherein a second limit block (8) is disposed on the lower base (3), the second limit block (8) is opened with a through hole, and a rear end of the buckle (7) is inserted into the through hole.

4. The air conditioner base according to claim 3, wherein after the upper base (2) is assembled with the lower base (3), the second limit block (8) abuts against a front side of the first limit block (4).

5. The air conditioner base according to claim 4, wherein a third limit block (9) is disposed on the upper base (2); and after the upper base (2) is assembled with the lower base (3), the second limit block (8) abuts against a rear side of the third limit block (9).

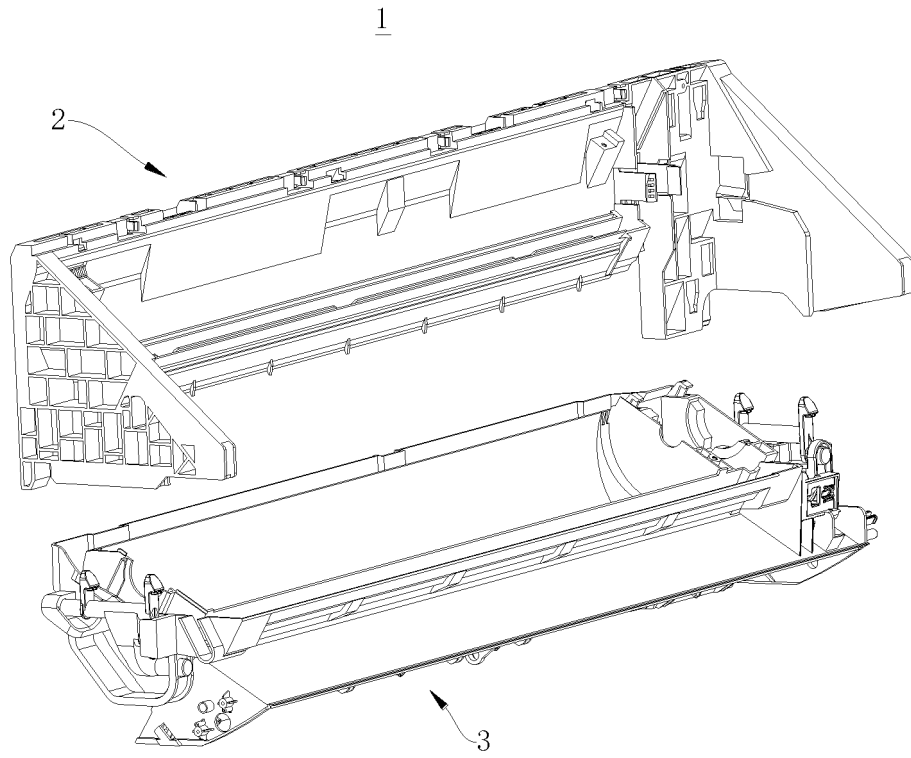
6. The air conditioner base according to claim 5, wherein a left end and a right end of the upper base (2) are respectively provided with a fourth limit block (10), and a left end and a right end of the lower base (3) are respectively provided with a fifth limit block (11); after the upper base (2) is assembled with the lower base (3), at least one fifth limit block (11) abuts against a left side of one fourth limit block (10), and at least one fifth limit block (11) abuts against a right side of one fourth limit block (10).

7. The air conditioner base according to claim 5, wherein a left end and a right end of the upper base (2) are respectively provided with a fourth limit block (10), and a left end and a right end of the lower base (3) are respectively provided with a fifth limit block (11); after the upper base (2) is assembled with the lower base (3), at least one fifth limit block (11) abuts against a right side of one fourth limit block (10), and at least one fifth limit block (11) abuts against a left side of one fourth limit block (10).

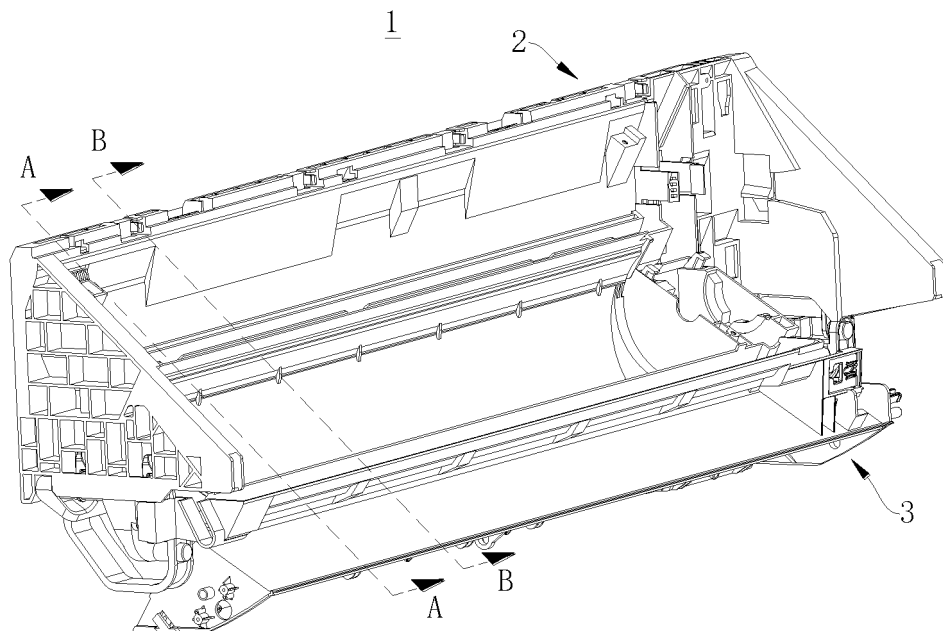
8. The air conditioner base according to claim 4, wherein a left end and a right end of the upper base (2) are respectively provided with a limit notch, and a left end and a right end of the lower base (3) are respectively provided with the fifth limit block (11); after the upper base (2) is assembled with the lower base (3), the fifth limit block (11) is located in the limit notch.

9. The air conditioner base according to claim 8, wherein the limit notch limits a left-right movement of the fifth limit block (11).

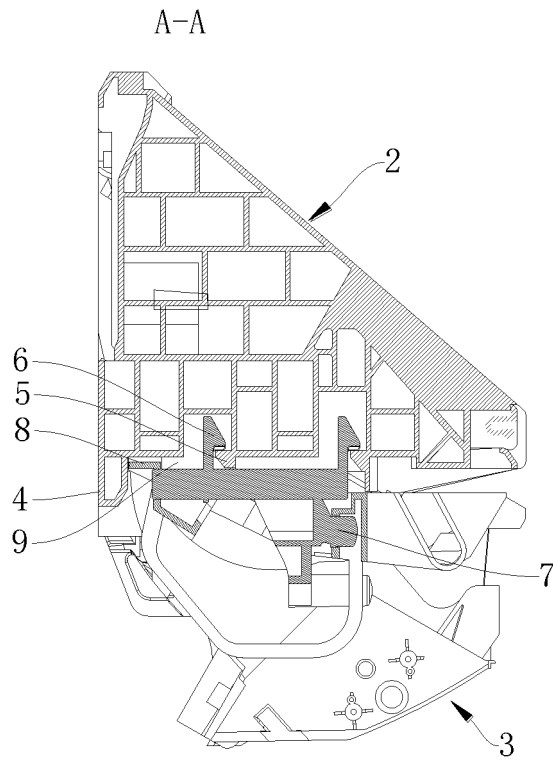
10. An air conditioner, , **characterized in that**, the air conditioner comprises the air conditioner base according to any one of claims 1 to 9.



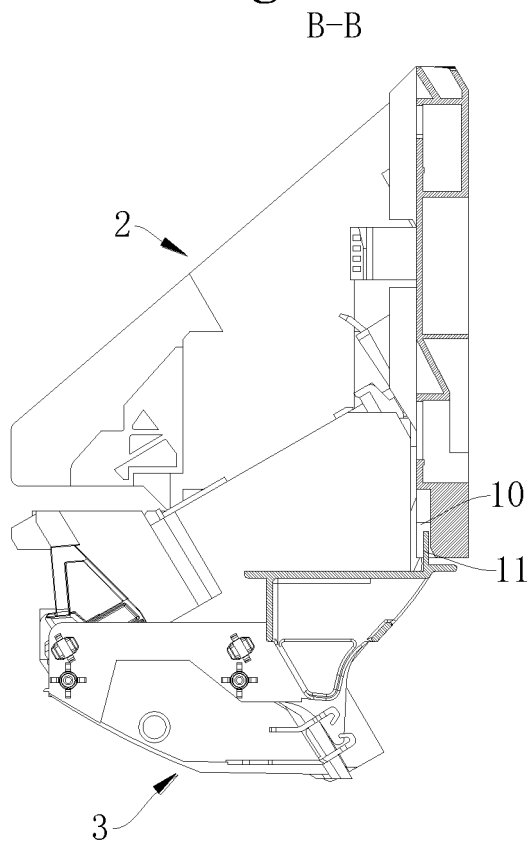
**Fig. 1**



**Fig. 2**



**Fig. 3**



**Fig. 4**

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2018/125504

## A. CLASSIFICATION OF SUBJECT MATTER

F24F 13/32(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

F24F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNABS, 中国期刊网全文数据库, CJFD, CNTXT, DWPI, SIPOABS, Google Scholar, ISI Web of Science, 奥克斯空调股份有限公司, 张坤鹏, 张引, 尚彬, 霍彪, 张华中, 古汤汤, 秦宪, 张玉忠, 曾友坚, 空调, 底座, 限位, 卡勾, 按钮, Air w conditioner, base, limit+, hook, button

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                 | Relevant to claim No. |
|-----------|--------------------------------------------------------------------------------------------------------------------|-----------------------|
| PX        | CN 207894010 U (AUX AIR CONDITIONING CO., LTD.) 21 September 2018 (2018-09-21)<br>description, paragraph [0031]    | 1-10                  |
| A         | CN 206973855 U (AUX AIR CONDITIONING CO., LTD.) 06 February 2018 (2018-02-06)<br>description, specific embodiment  | 1-10                  |
| A         | CN 107120723 A (AUX AIR CONDITIONING CO., LTD.) 01 September 2017 (2017-09-01)<br>description, specific embodiment | 1-10                  |
| A         | CN 206755365 U (AUX AIR CONDITIONING CO., LTD.) 15 December 2017 (2017-12-15)<br>description, specific embodiment  | 1-10                  |
| A         | CN 107084430 A (AUX AIR CONDITIONING CO., LTD.) 22 August 2017 (2017-08-22)<br>description, specific embodiment    | 1-10                  |
| A         | CN 107218651 A (AUX AIR CONDITIONING CO., LTD.) 29 September 2017 (2017-09-29)<br>description, specific embodiment | 1-10                  |
| A         | JP 6108873 B2 (MITSUBISHI ELECTRIC CORPORATION) 05 April 2017 (2017-04-05)<br>the abstract                         | 1-10                  |

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

04 March 2019

Date of mailing of the international search report

13 March 2019

Name and mailing address of the ISA/CN

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**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

International application No.

**PCT/CN2018/125504**

| Patent document<br>cited in search report | Publication date<br>(day/month/year) | Patent family member(s) | Publication date<br>(day/month/year) |
|-------------------------------------------|--------------------------------------|-------------------------|--------------------------------------|
| CN 207894010 U                            | 21 September 2018                    | None                    |                                      |
| CN 206973855 U                            | 06 February 2018                     | None                    |                                      |
| CN 107120723 A                            | 01 September 2017                    | None                    |                                      |
| CN 206755365 U                            | 15 December 2017                     | None                    |                                      |
| CN 107084430 A                            | 22 August 2017                       | None                    |                                      |
| CN 107218651 A                            | 29 September 2017                    | None                    |                                      |
| JP 6108873 B2                             | 05 April 2017                        | JP 2014163619 A         | 08 September 2014                    |

Form PCT/ISA/210 (patent family annex) (January 2015)