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Patent Search

Invention Title	PORTABLE PELTIER AIR CONDITIONER
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Field Of Invention	CHEMICAL
Classification (IPC)	C09K0005040000, B60H0001000000, F25B0021020000, C10M0171000000, F03G0007000000

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Abstract:

The present Air Conditioners are very efficient and reliable but it has some demerits. It has been observed during the last two decades that the Ozone layer is slowly destroyed because of the refrigerant i.e. molecules of fluorinated hydrocarbons used for refrigeration and air-conditioning purposes. The regular refrigerant used which are spilled and goes into the air. It is harmful to keep up the earth ecosystem. An aim to reduce that we came with the new cooling framework utilizing the Peltier Module which will defeat all the hindrances of the existing HVAC framework. Ordinary blower run cooling gadgets have a large number of disadvantages with the utilization of CFC refrigerants with an impact on global temperature alteration. A large portion of the power age depends on the coal power plants, which add ozone-depleting substances to the environment is the significant reason for an unnatural weather change. Peltier coolers have numerous focal points over ordinary cooling gadgets, minimized in size, lightweight, high in dependability, no mechanical or moving parts, and no working liquid. Working on the Thermo-electric Peltier model we can able to get the maximum cooling, here we obtained with maximum performance is 17.1°C further which is controlled by IoT devices for remote operation. Figure. 1

Complete Specification

Claims:

We Claim:

1. A Portable Peltier Air Conditioner, comprising of
 - a. a node MCU for online controlling of the system through the mobile app.
 - b. one or more Peltier devices placed on walls of the room or closed space powered by the battery/supply;
 - c. a temperature controller with a sensor for maintaining the temperature inside the closed space and display to show the present temperature.
 - d. exhaust fans and aluminum heat sinks are provided to transfer the heat on the other side of the Peltier devices.
2. The Portable Peltier Air Conditioner as claimed in claim 1, wherein the supply in DC form is fed to the Peltier devices whenever it is turned on through the mobile app.
3. The Portable Peltier Air Conditioner as claimed in claim 1, wherein the sensor senses the ambient temperature of the closed space and displays in LCD screen and also in the mobile app through node MCU.
4. The Portable Peltier Air Conditioner as claimed in claim 1, wherein the mobile app is used to control the temperature using a slider in the app.

, Description:DESCRIPTION OF THE INVENTION:

TECHNICAL FIELD OF INVENTION:

[0001] The field of the invention is related to the electrical energy system used for a portable Peltier air conditioner for small and remote users.

BACKGROUND OF INVENTION:

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Application Details

APPLICATION NUMBER	202041035792
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	19/08/2020
APPLICANT NAME	1 . Dr. Ch. Santhan Kumar 2 . Dr. Vijayakrishna Boyina 3 . Dr. B. Praveen Kumar 4 . Dr. N. Karthik 5 . Mr. V. Sampath Kumar 6 . Mr. Rathaiah Meram 7 . Mr. J. Sreeranganayakulu 8 . Mr. Hariprasad Chitte
TITLE OF INVENTION	PORTABLE PELTIER AIR CONDITIONER
FIELD OF INVENTION	CHEMICAL
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ADDITIONAL-EMAIL (As Per Record)	china.v1985@gamil.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	11/09/2020

Application Status

APPLICATION STATUS	Awaiting Request for Examination
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➡ Filed ➡ Published ➡ RQ Filed ➡ Under Examination ➡ Disposed

In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

"FORM 1 THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 APPLICATION FOR GRANT OF PATENT (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)	
				Application No.	
				Filing date:	
				Amount of Fee paid:	
				CBR No:	
				Signature:	
1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)					
2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]					
Ordinary (✓)		Convention ()		PCT-NP ()	
Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()
3A. APPLICANT(S)					
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3B. CATEGORY OF APPLICANT [Please tick (✓) at the appropriate category]				
Natural Person (✓)		Other than Natural Person		
	Small Entity ()	Startup ()	Others ()	
4. INVENTOR(S) [Please tick (✓) at the appropriate category]				
Are all the inventor(s)	Yes (✓)		No ()	
same as the applicant(s) named above?				
If "No", furnish the details of the inventor(s)				
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			Country	
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5. TITLE OF THE INVENTION				
PORTABLE PELTIER AIR CONDITIONER				

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	Fax No.				
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8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION					
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)
9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)					
International application number			International filing date		
10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION					
Original (first) application No.			Date of filing of original (first) application		
11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT					
Main application/patent No.			Date of filing of main application		
12. DECLARATIONS					

(i) Declaration by the inventor(s)

(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).

I/We, the above named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date

(b) Signature(s)

(c) Name(s)

(ii) Declaration by the applicant(s) in the convention country

(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date

(b) Signature(s)

(c) Name(s) of the signatory

(iii) Declaration by the applicant(s)

We, the applicant(s) hereby declare(s) that: -

- We are in possession of the above-mentioned invention.
- The complete specification relating to the invention is filed with this application.
- The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.
- There is no lawful ground of objection(s) to the grant of the Patent to us.
- We are the true & first inventor(s).
- I am/we are the assignee or legal representative of true & first inventor(s).
- The application or each of the applications, particulars of which are given in Paragraph-8, was the first application in convention country/countries in respect of my/our invention(s).
- I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.
- My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.
- The application is divided out of my /our application particulars of which is given in Paragraph-10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.
- The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11.

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

(a) ✓ Form 2

Item	Details	Fee	Remarks
Complete specification	No. of pages 04	INR 1600	
No. of Claim(s)	No. of claims -04 and No. of pages - 01		
Abstract	No. of pages -01		
No. of Drawing(s)	No. of drawings -03 and No. of pages – 03		

In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

(b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(c) Sequence listing in electronic form

(d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(e) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.

(f) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.

(g) Statement and Undertaking on Form 3

(h) Declaration of Inventorship on Form 5

(i) ✓ Power of Authority

(j).....

Total fee 1600 in Cash (wire transfer)

We hereby declare that to the best of our knowledge, information and belief the fact and matters stated herein are correct and we request that a patent may be granted to us for the said invention.

Dated this 19th day of August 2020.

Chinnadurai V

Digitally signed by Chinnadurai V
Date: 2020.08.19 20:43:10 +05'30'

Name: Chinnadurai V

To,

The Controller of Patents

The Patent Office, at Chennai.

Note: -

* Repeat boxes in case of more than one entry.

* To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.

* Tick (✓)/cross (x) whichever is applicable/not applicable in declaration in paragraph-12.

* Name of the inventor and applicant should be given in full, family name in the beginning.

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* For fee: See First Schedule”;