505374478 03/14/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5421271

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAKUROU OGAWA	10/26/2017
EIJI TOOYAMA	10/20/2017
AKIKO SERA	10/20/2017
MORIMITSU SEKIMOTO	10/30/2017

RECEIVING PARTY DATA

Name:	DAIKIN INDUSTRIES, LTD.
Street Address:	UMEDA CENTER BUILDING, 4-12, NAKAZAKI-NISHI 2-CHOME, KITA-KU
City:	OSAKA-SHI, OSAKA
State/Country:	JAPAN
Postal Code:	530-8323

PROPERTY NUMBERS Total: 1

Property Type	Number			
Application Number:	16332907			

CORRESPONDENCE DATA

Fax Number: (703)205-8050

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 703-205-8000

Email: tuyen.y.ly@bskb.com, mailroom@bskb.com BIRCH, STEWART, KOLASCH & BIRCH, LLP **Correspondent Name:** 8110 GATEHOUSE ROAD, SUITE 100E Address Line 1:

Address Line 4: FALLS CHURCH, VIRGINIA 22042

ATTORNEY DOCKET NUMBER:	4633-0678PUS1
NAME OF SUBMITTER:	TUYEN LY
SIGNATURE:	/tuyen ly/
DATE SIGNED:	03/14/2019

Total Attachments: 8

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PATENT REEL: 048596 FRAME: 0708 505374478

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PATENT REEL: 048596 FRAME: 0709

Attorney Docket No. 4633-0678PUS1

BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747

Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

Title of Invention ⇒ CURRENT ESTIMATING DEVICE

As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:

Application not 🔝 Attached

This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:

Enter Applia No. 🕏

United States Application Number or PCT International Appln. No. PCT/JP2017/035239

Enter Filing Date 🔝

filed on September 28, 2017

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.

WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.

Insert Name of Assignee WHEREAS, DAIKIN INDUSTRIES, LTD.

Insert Address of Assignee of Umeda Center Building, 4-12, Nakazaki-nishi 2-chome, Kita-ku, Osaka-shi, Osaka 530-8323, Japan

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

Check Bex if Appropriate

in any foreign countries.

NOW, THEREPORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

Application No: 16/332,907 Filed on 03/13/2019

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

lewenter's Same	si.	Inventor	Takurou OGAWA	Date: October 26,201)	
Inventor's Signoture	\$	Signature:	17 / JE 189	<u> </u>	
			Symptom Vising Suffy	AND AND THE STATE OF THE STATE	

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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Insert Name of Assignee

WHEREAS, DAIKIN INDUSTRIES, LTD.

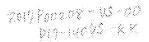
Insert Address of Assignee of Umeda Center Building, 4-12, Nakazaki-nishi 2-chome, Kita-ku, Osaka-shi, Osaka 530-8323, Japan

its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and

Check Box if Appropriate

in any foreign countries.

NOW, THEREPORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.



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In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

additional form for each additional inventor.

Inventor's Name	eS	Inventor:	Eiji TOOYAMA		Date:	October	20,2011
Inventor's Signature	**	Signature:	<u> </u>	疾引			
Note: An	appli	ication data sh	ieet (PTO/SB/14 or e	nuivalent), including naming the entire in		2	Smrang Hile from Vice

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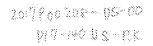
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Check Box if Appropriate

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In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Inventor's Name	ವ	Inventor:	Akiko SERA	Date	October 20 , 2017
Inventor's Signature	eş.	Signature:	世界等	·	
Notes An additional for	appli m for	ication data sl	neet (PTO/SB/14 or equivalent), including naming the entire in al inventor.	ventive en	tity, must accompany this form. Use an

Attorney Docket No. 4633-0678PUS1

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Application No: 16/332,907 Filed on 03/13/2019

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In witness whereof, executed by the undersigned on the date opposite the undersigned name.

LEGAL NAME OF INVENTOR

Incentor's Name	25	Inventor	Morimitsu SEKIMOTO	Date:	October 30, 2017
Inventor's Signature	\$	Signature:	置左 与港		
Note: An a	appli	cation data si	neet (PTO/SB/14 or equivalent), including naming the entire invo	entive en	nity, must accompany this form. Use an

Page 2 of 2

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PATENT REEL: 048596 FRAME: 0717

RECORDED: 03/14/2019