

Kongkun C.

From: Giometti, Tony [TGiometti@ashrae.org] on behalf of Publication Permissions [permissions@ashrae.org]
Sent: Friday, July 11, 2008 12:05 PM
To: Kongkun Charoenvisal
Subject: RE: Copyright Reprint Permission Request

Dear Mr. Charoenvisal,

Thank you for your interest in using the three ASHRAE Handbook figures in your thesis.

The figures may be used with the following copyright statement, conditions and royalty fee.

Conditions of use for ASHRAE material are as follows:

- ☑ Use of this material is limited to one-time use in (name of publication and issue or specific use).
- ☑ ASHRAE copyright notice or attribution to ASHRAE must appear.
- ☑ Use of this ASHRAE content may not be done in a way that will state or imply ASHRAE endorsement of commercial products or services.
- ☑ No additional reproduction may be made without the permission of ASHRAE.
- ☑ If the requestor modifies the content in any way, the credit line must note that the information has been modified or is based on the original ASHRAE content.
- ☑ This permission should not be construed that ASHRAE is waiving any copyright protection or other rights entitled to its intellectual property.

Copyright notice:

Copyright ____, ©American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (www.ashrae.org). Reprinted by permission from (year) ASHRAE Handbook–(title). This text may not be copied nor distributed in either paper or digital form without ASHRAE's permission.

Royalty fee:
\$25

Please let me know if the above is acceptable to you. If so, I will prepare an invoice to be sent to your attention.

Thank you again.

Best regards,

Tony Giometti

-----Original Message-----

From: Kongkun Charoenvisal [mailto:kongkun_c@vt.edu]
Sent: Friday, June 06, 2008 1:03 PM
To: Publication Permissions
Subject: Copyright Reprint Permission Request

412 Hampton Ct.
Blacksburg, VA
24060

June 6, 2008

ASHRAE Publications
1791 Tullie Circle, NE
Atlanta, GA 30329-2305 USA
Telephone: 404-636-8400
Fax: 404-321-5478
E-mail: permissions@ashrae.org

Dear Sir/Madam:

I, Kongkun Charoenvisal, am completing a master thesis at Virginia Polytechnic Institute and State University entitled "Energy Performance and Economic Evaluations of the Geothermal Heat Pump System used in KnowledgeWorks I and II Buildings, Blacksburg, Virginia". I would like your permission to reprint in my thesis excerpts as described in the Copyright Reprint Permission Request form.

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you.

I would like to thank you in advance for your kind consideration in this matter. Please feel free to contact me via this e-mail address for further information or concerns. I am looking forward to hear from you soon.

Sincerely yours,

--

Kongkun Charoenvisal
M.S.ARCH. Student
School of Architecture + Design
201 Cowgill Hall (0205)
Blacksburg, VA 24061

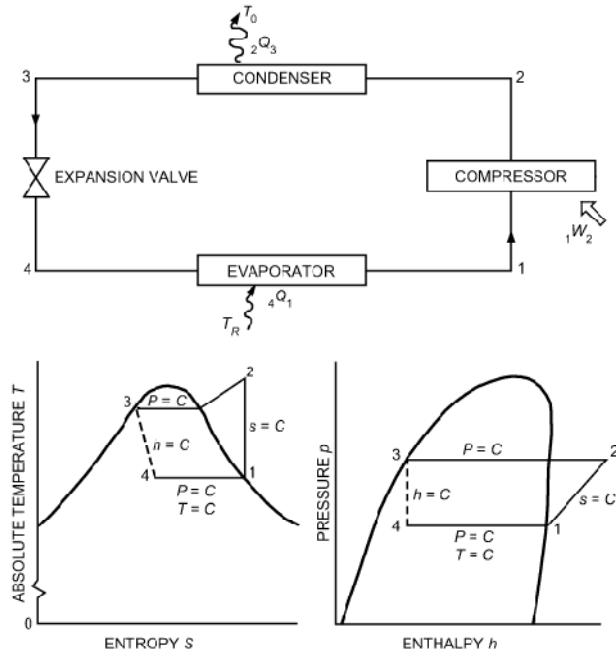
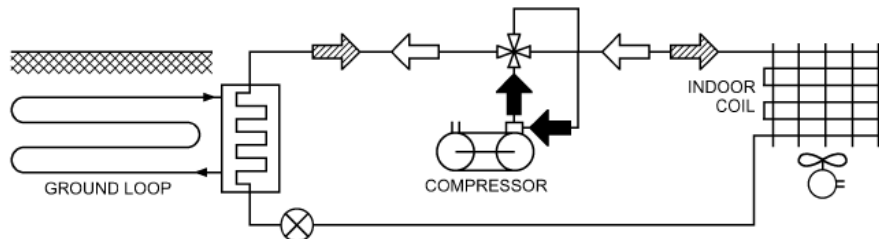
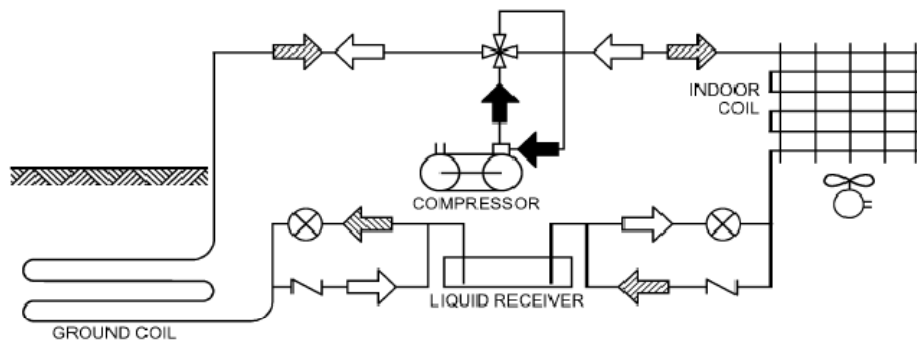


Figure 8 - Theoretical Single-Stage Vapor Compression Refrigeration Cycle, ASHRAE Handbook Fundamental 2005, Chapter 1: Thermodynamics and Refrigeration Cycles, Page 1.7, 2005.



A part of Figure 5 - Heat Pump Types, ASHRAE Handbook HVAC System and Equipment 2004, Chapter 8: Applied Heat pump and Heat Recovery Systems, Page 8.5, 2004.



A part of Figure 5 - Heat Pump Types, ASHRAE Handbook HVAC System and Equipment 2004, Chapter 8: Applied Heat Pump and Heat Recovery Systems, Page 8.5, 2004.



ASHRAE

Technology for a Better Environment

1791 Tullie Circle, NE • Atlanta, GA 30329-2305 USA • Tel 404.636.8400 • Fax 404.321.5478 • <http://www.ashrae.org>

Customer #: 008090168I

Mr Kongkun Charoenvisal
Apartment
412 Hampton Ct.
Blacksburg, VA 24060

Invoice

Invoice #: 7000185014

Invoice Date: 07/18/2008

Description	Quantity	Price	Discount	Amount
Miscellaneous Reprint permission to use 3 figures from the 2004 and 2005 ASHRAE Handbooks	1	\$25.00	\$0.00	\$25.00

This invoice is due in full upon receipt.

Invoice Total	\$25.00
Taxes	\$0.00
Amount Paid	\$0.00
PLEASE PAY	\$25.00

412 Hampton Ct.
Blacksburg, VA 24060
kongkun_c@vt.edu

June 6, 2008

112 Architecture Annex,
School of Public & International Affairs,
Virginia Tech,
Blacksburg, VA 20036

Dear Dr. John Randolph

I, Kongkun Charoenvisal, am completing a master thesis at Virginia Polytechnic Institute and State University entitled "Energy Performance and Economic Evaluations of the Geothermal Heat Pump System used in KnowledgeWorks I and II Buildings, Blacksburg, Virginia". I would like your permission to reprint in my thesis excerpts from the following:

Masters, Gilbert M. "Chapter 7: Building Energy Systems and Solar Thermal Applications." In *Energy for Sustainability: Technology, Planning, Policy (Draft)*, by John Randolph and Gilbert M. Masters, 7.1-7.34. Washington, D.C.: Under Contract with Island Press, 2007.

For the excerpts to be reproduced, please see the attached pages.

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you or your company owns the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope. Thank you very much.

Sincerely yours,

KONGKUN CHAROENVISAL

Kongkun Charoenvisal

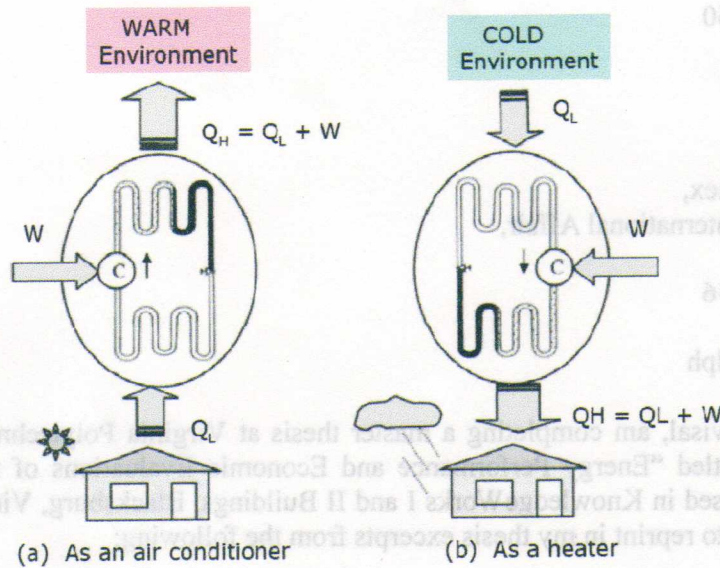
PERMISSION GRANTED FOR THE
USE REQUESTED ABOVE:

(Print Name: _____)

Date: _____

7.15.08

The excerpts to be reproduced are:



$$COP_{Cooling} = \frac{\text{Cooling delivered}}{\text{Work input}} = \frac{Q_L}{W}$$

$$COP_{Heating} = \frac{\text{Heat delivered}}{\text{Work input}} = \frac{Q_L + W}{W} = 1 + \frac{Q_L}{W}$$

Figure 2.2 - The $COP_{Cooling}$ and $COP_{Heating}$ of an air-to-air heat pump from (Masters 2007).

This figure will be reprinted in the Chapter 2: Literature Review of the thesis. The figure is used to illustrate the cooling and heating cycles and COPs of an air-source heat pump.

412 Hampton Ct.
Blacksburg, VA 24060
kongkum_c@vt.edu

June 6, 2008

112 Architecture Annex,
School of Public & Interm...
Virginia Tech,
Blacksburg, VA 24036

Dear Dr. John Randolph,

I, Kongkum Charoensit, am writing this thesis at Virginia Tech. My thesis is titled "Energy Performance of the Geothermal Heat Pump System used in Knowledge I and II Buildings, Virginia". I would like your permission to reprint in my thesis excerpts from your paper.

Masters, 7-1-73A, Washington, D.C.: Under Contract with Island Press, 2007.

For the excerpts to be reproduced, please see the attached pages.

The enclosed letter is for your information. I am enclosing a copy of the letter for your records. I am enclosing a copy of the letter for your records. I am enclosing a copy of the letter for your records.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope. Thank you very much.

Sincerely yours,

Kongkum Charoensit

PERMISSION GRANTED FOR THE
USE REQUESTED ABOVE:

(Print Name: John Randolph)
Date: 7-12-08