



Legal Department

October 9, 2018

Chairman Asim Z. Haque
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215-3793

Re: **In the Matter of the Application of**)
Advance Auto Parts)
and Ohio Power Company) **Case No. 18-0893-EL-EEC**
for Approval of a Special Arrangement)
Agreement with a Mercantile Customer)

Tanner Wolfram
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Regulatory Services
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Dear Chairman Haque,

Attached please find the Joint Application of Ohio Power Company (AEP Ohio) and the above-referenced mercantile customer for approval of a Special Arrangement of the commitment of energy efficiency/peak demand reduction (EE/PDR) resources toward compliance with the statutory benchmarks for 2018 (hereinafter "Joint Application").

Amended Substitute Senate Bill 221, codified at R.C. 4928.66, sets forth EE/PDR benchmarks that electric distribution utilities are required to meet or exceed. The statute allows utilities to include EE/PDR resources committed by mercantile customers for integration into the utilities' programs to be counted toward compliance with a utility's EE/PDR benchmarks. The statute also enables the Commission to approve special arrangements for mercantile customers that commit EE/PDR resources to be counted toward compliance with EE/PDR benchmarks.

The Commission's Order in Case No. 10-834-EL-EEC established a streamlined process to expedite review of these special arrangements by developing a sample application process for parties to follow for consideration of such programs implemented during the prior three calendar years. The attached Joint Application and affidavit conforms with AEP Ohio's version of the streamlined sample application. As requested by Commission Staff, any confidential information referenced in the Joint Application has been provided confidentially to Commission Staff for filing in Commission Docket 10-1599-EL-EEC and subject to the confidentially protections of R.C. 4901.16 and OAC 4901-1-24(E). AEP Ohio respectfully requests that the Commission treat the two cases as associated dockets and that any confidential information provided to Staff for filing in connection with the Joint Application be subject to the protective order requested in Docket 10-1599-EL-EEC.

Cordially,

/s/ Tanner Wolfram
Tanner Wolfram

Attachments



Public Utilities Commission

Application to Commit Energy Efficiency/Peak Demand Reduction Programs (Mercantile Customers Only)

Case No.: 18-0893-EL-EEC

Mercantile Customer: ADVANCE AUTO PARTS

Electric Utility: Ohio Power

Program Title or Description: AEP Ohio Business Incentives for Energy Efficiency: Self Direct Program

Rule 4901:1-39-05(F), Ohio Administrative Code (O.A.C.), permits a mercantile customer to file, either individually or jointly with an electric utility, an application to commit the customer's existing demand reduction, demand response, and energy efficiency programs for integration with the electric utility's programs. The following application form is to be used by mercantile customers, either individually or jointly with their electric utility, to apply for commitment of such programs in accordance with the Commission's pilot program established in Case No. [10-834-EL-POR](#)

Completed applications requesting the cash rebate reasonable arrangement option (Option 1) in lieu of an exemption from the electric utility's energy efficiency and demand reduction (EEDR) rider will be automatically approved on the sixty-first calendar day after filing, unless the Commission, or an attorney examiner, suspends or denies the application prior to that time. Completed applications requesting the exemption from the EEDR rider (Option 2) will also qualify for the 60-day automatic approval so long as the exemption period does not exceed 24 months. Rider exemptions for periods of more than 24 months will be reviewed by the Commission Staff and are only approved up the issuance of a Commission order.

Complete a separate application for each customer program. Projects undertaken by a customer as a single program at a single location or at various locations within the same service territory should be submitted together as a single program filing, when possible. Check all boxes that are applicable to your program. For each box checked, be sure to complete all subparts of the question, and provide all requested additional information. Submittal of incomplete applications may result in a suspension of the automatic approval process or denial of the application. Any confidential or trade secret information may be submitted to Staff on disc or via email at ee-pdr@puc.state.oh.us.

Section 1: Company Information

Name: ADVANCE AUTO PARTS

Principal address: 301 Plainfield Rd Ste 310, Syracuse, Ny 13212

Address of facility for which this energy efficiency program applies: 427 Canton Rd, Carrollton, Oh 44615-9424

Name and telephone number for responses to questions:

Leidos Engineering, Llc, Advance Auto Parts, (855) 926-7543

Electricity use by the customer (check the box(es) that apply):

- ☐ The customer uses more than seven hundred thousand kilowatt hours per year at our facility. (Please attach documentation.)

See Confidential and Proprietary Attachment 4 - Calculation of Rider Exemption and UCT which provides the facility consumption for the last three years, benchmark kWh, and the last 12 months usage.

- ☒ The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.) When checked, see Attachment 6 - Supporting Documentation for a listing of the customer's name and service addresses of other accounts in the AEP Ohio service territory.

Section 2: Application Information

A) The customer is filing this application (choose which applies):

- ☐ Individually, on our own.
- ☒ Jointly with our electric utility.

B) Our electric utility is: Ohio Power Company

The application to participate in the electric utility energy efficiency program is "Confidential and Proprietary Attachment 3 – Self Direct Program Project Completed Application."

C) The customer is offering to commit (choose which applies):

- ☐ Energy savings from our energy efficiency program. (Complete Sections 3, 5, 6, and 7.)
- ☐ Capacity savings from the customer's demand response/demand reduction program. (Complete Sections 4, 5, 6, and 7.)
- ☒ Both the energy savings and the demand reduction from the customer's energy efficiency program. (Complete all sections of the Application.)

Section 3: Energy Efficiency Programs

A) The customer's energy efficiency program involves (choose whichever applies):

- ☒ Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, 7/24/2017 and the date on which the customer would have replaced your equipment if you had not replaced it early. Please include a brief explanation for how the customer determined this future replacement date (or, if not known, please explain why this is not known)).

The remaining life of the equipment varies and is not known with certainty. The future replacement date is unknown and has historically been at the end of equipment life. Replacement was completed early to achieve energy savings and to reduce future maintenance costs.

- ☐ Installation of new equipment to replace equipment that needed to be replaced. The customer installed new equipment on the following date(s):
- ☐ Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s):
- ☐ Behavioral or operational improvement.

B) Energy savings achieved/to be achieved by your energy efficiency program:

- 1) If you checked the box indicating that your project involves the early replacement of fully functioning equipment replaced with new equipment, then calculate the annual savings [(kWh used by the original equipment) - (kWh used by new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Unit Quantity (watts) = Existing (watts x units) - Installed (watts x units)

kWh Reduction (Annual Savings) = Unit Quantity x (Deemed kWh/Unit)

Annual savings: 990 kWh

See Confidential and Proprietary Attachment 5 - Self Direct Program Project Calculation for annual energy savings calculations and 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.

- 2) If you checked the box indicating that you installed new equipment to replace equipment that needed to be replaced, then calculate the annual savings [(kWh used by less efficient new equipment) - (kWh used by the higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: kWh

Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.

- 3) If you checked the box indicating that your project involves equipment for new construction or facility expansion, then calculate the annual savings [(kWh used by less efficient new equipment) - (kWh used by higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: kWh

Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.

- 4) If you checked the box indicating that the project involves behavioral or operational improvements, provide a description of how the annual savings were determined.

Section 4: Demand Reduction/Demand Response Programs

A) The customer's program involves (check the one that applies):

- ☒ Coincident peak-demand savings from the customer's energy efficiency program.
- ☐ Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)
- ☐ Potential peak-demand reduction check the one that applies):

➤ Choose one or more of the following that applies:

- ☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.
- ☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a program that is equivalent to an RTO program, which has been approved by the Public Utilities Commission of Ohio.

B) On what date did the customer initiate its demand reduction program?

The coincident peak-demand savings are permanent installations that reduce demand through energy efficiency and were installed on the date specified in Section 3 A above.

C) What is the peak demand reduction achieved or capable of being achieved (show calculations through which this was determined):

Unit Quantity (watts) = Existing (watts x units) - Installed (watts x units)

KW Demand Reduction = Unit Quantity (watts) x (Deemed KW/Unit (watts))

.7 kW

See Confidential and Proprietary Attachment 5 - Self Direct Program Project Calculation for peak demand reduction calculation, and 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.

Section 5: Request for Cash Rebate Reasonable Arrangement (Option 1) or Exemption from Rider (Option 2)

Under this section, check the box that applies and fill in all blanks relating to that choice.

Note: If Option 2 is selected, the application will not qualify for the 60-day automatic approval. All applications, however, will be considered on a timely basis by the Commission.

A) The customer is applying for:

☒ Option 1: A cash rebate reasonable arrangement.

OR

☐ Option 2: An exemption from the cost recovery mechanism implemented by the electric utility.

OR

☐ Commitment payment

B) The value of the option that the customer is seeking is:

Option 1: A cash rebate reasonable arrangement, which is the lesser of (show both amounts):

☐ A cash rebate of \$_____. (Rebate shall not exceed 50% project cost. Attach documentation showing the methodology used to determine the cash rebate value and calculations showing how this payment amount was determined.)

OR

☒ A cash rebate valued at no more than 50% of the total project cost, which is equal to \$ 187.50. (Attach documentation and calculations showing how this payment amount was determined.)

See Confidential and Proprietary Attachment 5 – Self Direct Program Project Calculation for incentive calculations for this mercantile program.

Option 2: An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider.

- ☐ An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for ____ months (not to exceed 24 months). (Attach calculations showing how this time period was determined.)

OR

- ☐ A commitment payment valued at no more than \$_____. (Attach documentation and calculations showing how this payment amount was determined.)

OR

- ☐ Ongoing exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for an initial period of 24 months because this program is part of an ongoing efficiency program that is practiced by our organization. (Attach documentation that establishes your organization's ongoing efficiency program. In order to continue the exemption beyond the initial 24 month period your organization will need to provide a future application establishing additional energy savings and the continuance of the organization's energy efficiency program.)

Section 6: Cost Effectiveness

The program is cost effective because it has a benefit/cost ratio greater than 1 using the (choose which applies):

- ☐ Total Resource Cost (TRC) Test. The calculated TRC value is: _____
(Continue to Subsection 1, then skip Subsection 2)
- ☒ Utility Cost Test (UCT) . The calculated UCT value is: 2.75 (Skip to Subsection 2.)

Subsection 1: TRC Test Used (please fill in all blanks).

The TRC value of the program is calculated by dividing the value of our avoided supply costs (generation capacity, energy, and any transmission or distribution) by the sum of our program overhead and installation costs and any incremental measure costs paid by either the customer or the electric utility.

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The utility's incremental measure costs were _____.

Subsection 2: UCT Used (please fill in all blanks).

We calculated the UCT value of our program by dividing the value of our avoided supply costs (capacity and energy) by the costs to our electric utility (including administrative costs and incentives paid or rider exemption costs) to obtain our commitment.

Our avoided supply costs were \$ 532.48

The utility's program costs were \$ 5.94

The utility's incentive costs/rebate costs were \$ 187.50.

Section 7: Additional Information

Please attach the following supporting documentation to this application:

- Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment.

See Attachment 1 - Self Direct Project Overview and Commitment for a description of the project. See Attachment 6 - Supporting Documentation for the specifications of the replacement equipment 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed. Due to the length of time since the equipment replacement, the make, model and year of the replaced equipment is not available.

- A copy of the formal declaration or agreement that commits your program to the electric utility, including:

- 1) any confidentiality requirements associated with the agreement;

See Attachment 2 - Self Direct Program Project Blank Application including Rules and Requirements. All confidentiality requirements are pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 - Self Direct Program Project Completed Application.)

- 2) a description of any consequences of noncompliance with the terms of the commitment;

See Attachment 2 - Self Direct Program Project Blank Application including Rules and Requirements. All consequences of noncompliance are pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 - Self Direct Program Project Completed Application.

- 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;

None required because the resources committed are permanent installations that reduce demand through increased efficiency during the Company's peak summer demand period generally defined as May through September and do not require specific coordination and communication to provide demand reduction capabilities to the Company.

- 4) permission by the customer to the electric utility and Commission staff and consultants to measure and verify energy savings and/or peak-demand reductions resulting from your program; and,

See Attachment 2 - Self Direct Program Blank Application including Rules and Requirements granting such permission pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 - Self Direct Program Project Completed Application.

- 5) a commitment by you to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.

See Attachment 1 - Self Direct Project Overview and Commitment for the commitment to comply with any information and compliance reporting requirements imposed by rule or as part of the approval of this arrangement by the Public Utilities Commission of Ohio.

- A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results. Additionally, identify and explain all deviations from any program measurement and verification guidelines that may be published by the Commission.

The Company applies the same methodologies, protocols, and practices to Self Direct Program retrospective projects that are screened and submitted for approval as it does to prospective projects submitted through its Prescriptive and Custom Programs. The Commission has not published a technical reference manual for use by the Company so deviations can not be identified. The project submitted is a prescriptive project and energy savings are determined as described in Confidential and Proprietary Attachment 5 - Self Direct Program Project Calculation, and 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.



Project # 18-23197
Docket # 18-0893

Application to Commit
Energy Efficiency/Peak Demand
Reduction Programs
(Mercantile Customers Only)

Case No.: 18-0893-EL-EEC

State of Ohio :

Nigma Mustafa, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

DNV GL Energy Services USA Inc. agent of Ohio Power
2. I have personally examined all the information contained in the foregoing application, including any exhibits and attachments. Based upon my examination and inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete.

Nigma Mustafa Engineer
Signature of Affiant & Title

Sworn and subscribed before me this 9th day of August, 2018 Month/Year

Linda M. Schmidt
Signature of official administering oath

LINDA M. SCHMIDT
Print Name and Title
Admin. Assistant

My commission expires on 7/31/2022




LINDA M. SCHMIDT
Notary Public, State of Ohio
My Commission Expires 7-31-2022



Self Direct Project Overview & Commitment

The Public Utility Commission of Ohio (PUCO) will soon review your application for participation in AEP Ohio's Energy Efficiency/Peak Demand Response program. Based on your submitted project, please select by initialing one of the two options below, sign and fax to 877-607-0740.

Customer Name	ADVANCE AUTO PARTS		
Project Number	AEP-18-23197		
Customer Premise Address	427 CANTON RD, CARROLLTON, OH 44615-9424		
Customer Mailing Address	301 Plainfield Rd Ste 310, Syracuse, NY 13212		
Date Received	4/27/2018		
Project Installation Date	7/24/2017		
Annual kWh Reduction	990		
Total Project Cost	\$929.69		
Unadjusted Energy Efficiency Credit (EEC) Calculation	\$250.00		
Simple Payback (yrs)	12.9		
Utility Cost Test (UCT) for EEC	2.75		
Utility Cost Test (UCT) for Exemption	0.07		
<i>Please Choose One Option Below and Initial</i>			
Self Direct EEC: 75%	\$187.50	<input checked="" type="checkbox"/>	Initial: 
EE/PDR Rider Exemption	12 Months (with possible extension up to 16 months after PUCO Approval)	<input type="checkbox"/>	Initial: _____

Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EE/PDR rider exemption, will result in the customer not being eligible to participate in any other energy efficiency programs offered by AEP Ohio during the period of exemption. In addition, the term of EE/PDR rider exemption is subject to ongoing review for compliance and could be changed by the PUCO.

If EEC has been selected, will the Energy Efficiency Funds selected help you move forward with other energy efficiency projects?

☒ YES ☐ NO

Note: Exemptions for periods beyond 24 months are subject to look-back or true-up adjustments every year to ensure that the exemption accurately reflects the EEDR savings. Applicants must file for renewal for any exemption beyond 12 months.

Project Overview:

The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows.

Installation of high efficiency AC unit

The documentation that was included with the application proved that the energy measures applied for were purchased and installed.

By signing this document, the Mercantile customer affirms its intention to commit and integrate the above listed energy efficiency resources into the utility's peak demand reduction, demand response, and energy efficiency programs. By signing, the Mercantile customer also agrees to serve as a joint applicant in any filings necessary to secure approval of this arrangement by the Public Utilities Commission of Ohio, and comply with any information and compliance reporting requirements imposed by rule or as part of that approval.

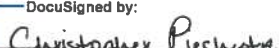
Ohio Power Company

By: 

Title: Manager

Date: 05/24/2018

ADVANCE AUTO PARTS

DocuSigned by:
By: 

Title: Energy Analyst

Date: 5/23/2018 10:52:45 AM EDT



Application Guidelines

Final Applications must be submitted before November 16, 2018 in order to qualify for incentives identified in this application.

Step 1. Verify Eligibility

- Customer must have a valid AEP Ohio account.
- Equipment/measure must be installed at facilities served by the AEP Ohio account.
- Project must produce permanent reduction in electrical energy use (kWh).
- All installed equipment must meet or exceed the specifications in the application.
- Please see [Efficient Products for Business, Process Efficiency and New Construction Terms and Conditions](#) or [Self-Direct Terms and Conditions](#) for program rules and regulations.

Step 2. Complete Applicant Information

- All fields in customer and project information sections must be completed.
- Contractor information must be completed if project is not self-performed.

Step 3. Complete the Incentive Worksheet(s)

- Find and read specifications related to the project.
- Choose the incentive category on the worksheet based on installed equipment and specifications.
- Complete all fields (fixture description, operating hours, etc.) on the related worksheet.

Step 4. Sign Customer Agreement

- Read the Terms and Conditions before signing and submitting the application.
- Sign Pre-Approval Agreement and submit the application to reserve funds.
- Sign Final Application Agreement and submit the application after the project is completed to receive funds.
- Complete Third Party Payment Release Authorization ONLY if incentive payment is to be paid to an entity other than AEP Ohio customer listed on the Applicant Information page.

Step 5. Submit Pre-Approval Application¹

(For Self-Direct applications, skip to Step 6)

- Submitting a Pre-Approval Application to determine qualification and reserve program funds for a project is strongly recommended.
- All process efficiency projects require pre-approval.
- Complete all fields in Pre-Approval Agreement.
- Pre-Approval Application must be submitted with:
 - Proposed scope of work (type and quantity of old and new equipment must be listed)
 - Specification sheets for all proposed equipment
 - W-9 form
- Submit application via email, fax or mail.
- An inspection may be required during application review; applicants requiring inspection will be contacted for scheduling.

Step 6. Submit Final Application

- Complete all fields for Final Application Agreement.
- Update the application if measures/equipment differs from pre-application.
- Final Application must be submitted with:
 - Dated and itemized material invoice
 - External labor invoice (if applicable)
 - If Pre-Approval Application was not submitted, include the documents listed on Step 5
- Submit application via email, fax or mail.
- An inspection may be required during application review; applicants requiring inspection will be contacted for scheduling.
- Self-Direct applications require additional steps. Please see the Self-Direct Terms and Conditions for details.

AEP Ohio Business Incentives Program

445 Hutchinson Avenue, Suite 300

Columbus, Ohio 43235

877-541-3048 | aepohiosolutions@clearesult.com

Visit our website at AEPohio.com/solutions

¹A Pre-Approval Application is not a guarantee of an incentive; the actual incentive will be based on the energy savings and equipment installed as determined in the Final Application. Funds are reserved for 90 days, unless an applicant is granted an extension. The program team reserves the right to contact the customer before the reservation expiration date to ensure that the project is moving forward. If the project is not underway, the reservation may be cancelled. Reserved funds are not transferable to other projects, facilities and/or customers. A waiting list will be established when funds become fully subscribed.



Application Checklist

Pre-Approval

- ☐ Completed Applicant Information
- ☐ Estimated Total Project Cost
- ☐ Estimated Completion Date
- ☐ Completed Incentives Requested Section of Application
- ☐ Applicable Incentive Worksheets Completed
- ☐ Completed and Signed Customer Agreement
- ☐ Equipment Specifications
- ☐ Proposed Scope of Work
- ☐ W-9 Form (Business Name Must Match Line 1 or 2 on the Form)

Final Application Only (Without Pre-Approval)

- ☐ Completed Applicant Information
- ☐ Completed Incentives Requested Section of Application
- ☐ Applicable Incentive Worksheets Completed
- ☐ Total Project Cost
- ☐ Completion date
- ☐ Completed and Signed Customer Agreement
- ☐ Completed Third-Party Payment Release Authorization (optional)
- ☐ Itemized Invoices
- ☐ Equipment Specifications
- ☐ Scope of Work
- ☐ W-9 Form (Business Name Must Match Line 1 or 2 on the Form)

Final Application (With Pre-Approval)

- ☐ Completed Applicant Information
- ☐ Assigned Project Number on Signature Page
- ☐ Total Project Cost
- ☐ Project Completion Date
- ☐ Completed and Signed Final Payment Agreement
- ☐ Completed Third-Party Payment Release Authorization (optional)
- ☐ Installed Equipment Specifications (if there were changes from pre)
- ☐ Itemized Invoices
- ☐ Updated Scope of Work (if there were changes from pre)
- ☐ Applicable Incentive Worksheets (if there were changes from pre)



Applicant Information

AEP Application Number AEP - _ _ - _ _ _ _ _

Application Type (Select One)

CUSTOMER INFORMATION

Business Name _____

Name as It Appears on Utility Bill _____

How many AEP Ohio Accounts are at the Project Site? _____

AEP Ohio Account Numbers for this Project¹ _____

Taxpayer ID _____ - _____ W-9 Tax Status (Select One) _____

MAILING ADDRESS - WHERE CHECK WILL BE SENT

Contact Name _____ Contact Title _____

Mailing Address _____ City _____ State OH Zip _____

Phone _____ Ext. _____ Contact Email _____

How Did You Hear About the Program? (Select One) _____ AEP OH Energy Advisor _____

PROJECT INFORMATION

Project Name (if applicable) _____

☐ Check if mailing address and project site address are the same.

Project Site Address _____ City _____ State OH Zip _____

Building Type (Select One) _____ Shift (Select One) _____

Annual Operating Hours _____ Building Area (sq. ft.) _____

Construction Type (Select One) _____ Does the facility have a data center? (Select One) _____

¹Please only enter the first eleven digits of the account number.



Applicant Information

CONTRACTOR INFORMATION

Company Name _____

Contact Name _____ Title of Contact _____

Mailing Address _____ City _____ State OH Zip _____

Phone _____ Ext. _____ Contact Email _____

PRIMARY CUSTOMER CONTACT INFORMATION

Contact Name _____ Title of Contact _____

Phone _____ Ext. _____ Contact Email _____

Who should we contact with questions about the application? ☐ Customer ☐ Contractor

Incentive Summary Table

INCENTIVE CATEGORY	TOTAL INCENTIVES
LIGHTING	
HVAC	
MOTORS & DRIVES	
COMPRESSED AIR	
REFRIGERATION/FOOD SERVICE	
AGRICULTURE	
MISCELLANEOUS	
PROCESS EFFICIENCY	
NC LIGHTING (SELF-DIRECT ONLY)	
TOTAL INCENTIVES	

AEP Application Number AEP - _ _ - _ _ _ _ _



Customer Agreement

APPLICATION AGREEMENT

By signing this document, I agree to program requirements outlined in the measure specifications, Terms and Conditions for the applicable program and Final Application Agreement. As an eligible customer, I verify the information is correct and request consideration for participation under this program. Furthermore, I concur that I meet all eligibility criteria in order to receive payment under this program.

[Link to Efficient Products for Business/Process Efficiency Terms and Conditions, and Final Application Agreement](#)

[Link to Self-Direct Terms and Conditions, and Final Application Agreement](#)

☐ Pre-Application ☐ Final-Application

Project Completion Year (Select One) _____

Self-Direct _____

Project Completion Date _____

Total Project Cost _____

Total Requested Incentive¹ _____

Total Self-Direct Requested Incentive² _____

Print Name _____

Date _____

AEP Ohio Customer Signature _____

PRINT APPLICATION

¹Incentives have a threshold of 50% of the project cost and total incentives paid to a threshold of \$25,000 and Bid4Efficiency above that.

²Self-Direct incentives are 75% of Total Requested Incentive, after 50% of the project cost threshold and tiering is applied.



Third Party Payment Release

THIRD PARTY PAYMENT RELEASE AUTHORIZATION (NOT APPLICABLE TO SELF-DIRECT)

Complete this section **ONLY** if incentive payment is to be paid to an entity other than the AEP Ohio customer.

Make checks payable to: Company/Individual _____

Mailing Address _____ City _____ State ^{OH} Zip _____

Phone _____ Ext. _____

Taxpayer ID of 3rd Party _____ - _____ W-9 Tax Status _____

By signing this document, I authorize the payment of the incentive to the third party named above and understand that I will not receive the incentive payment from AEP Ohio. I also understand that my release of the payment to a third party does not exempt me from the program requirements outlined in the measure specifications, Terms and Conditions, and Final Application Agreement.

Print Name

Date

AEP Ohio Customer Signature



This combination qualifies for a Federal Energy
Efficiency Tax Credit when placed in service
between Feb 17, 2009 and Dec 31, 2016.

Certificate of Product Ratings

AHRI Certified Reference Number: 3607652

Date: 8/24/2017

Product: Year-Round Single-Package Air-Conditioner, Air-Cooled

Model Number: LGH060H4E**J

Manufacturer: LENNOX INDUSTRIES, INC.

Trade/Brand name: LENNOX

Region:

Region Note: Central air conditioners manufactured prior to January 1, 2015, are eligible to be installed in all regions until June 30, 2016. Beginning July 1, 2016, central air conditioners can only be installed in region(s) for which they meet the regional efficiency requirement.

Series name: ENERGENCE

Manufacturer responsible for the rating of this system combination is LENNOX INDUSTRIES, INC.

Rated as follows in accordance with AHRI Standard 210/240-2008 for Unitary Air-Conditioning and Air-Source Heat Pump Equipment and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (Btuh):	60000
EER Rating (Cooling):	12.70
SEER Rating (Cooling):	17.00
IEER Rating (Cooling):	

* Ratings followed by an asterisk (*) indicate a voluntary rerate of previously published data, unless accompanied with a WAS, which indicates an involuntary rerate

DISCLAIMER

AHRI does not endorse the product(s) listed on this Certificate and makes no representations, warranties or guarantees as to, and assumes no responsibility for, the product(s) listed on this Certificate. AHRI expressly disclaims all liability for damages of any kind arising out of the use or performance of the product(s), or the unauthorized alteration of data listed on this Certificate. Certified ratings are valid only for models and configurations listed in the directory at www.ahridirectory.org.

TERMS AND CONDITIONS

This Certificate and its contents are proprietary products of AHRI. This Certificate shall only be used for individual, personal and confidential reference purposes. The contents of this Certificate may not, in whole or in part, be reproduced; copied; disseminated; entered into a computer database; or otherwise utilized, in any form or manner or by any means, except for the user's individual, personal and confidential reference.

CERTIFICATE VERIFICATION

The information for the model cited on this certificate can be verified at www.ahridirectory.org, click on "Verify Certificate" link and enter the AHRI Certified Reference Number and the date on which the certificate was issued, which is listed above, and the Certificate No., which is listed at bottom right.

©2014 Air-Conditioning, Heating, and Refrigeration Institute



we make life better™

CERTIFICATE NO.:

131480566428069966

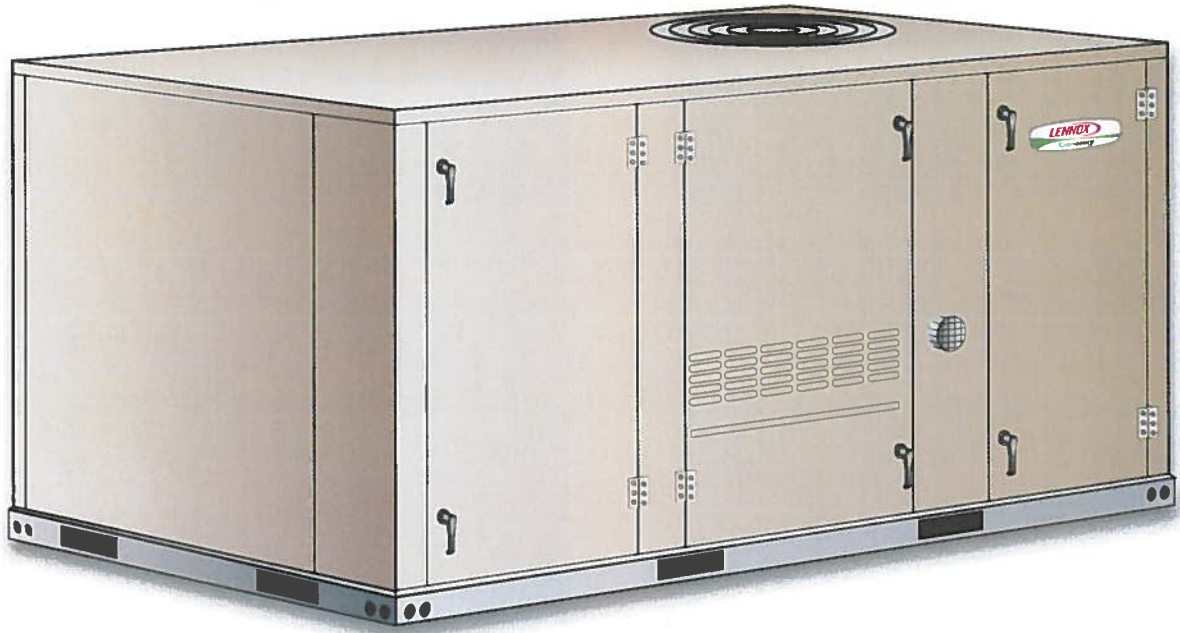


PACKAGED GAS ELECTRIC
LGH
Energence® Rooftop Units
50 HZ

PRODUCT SPECIFICATIONS

ENERGENCE®
Saving Energy with Intelligence™

Bulletin No. 490138
December 2017
Supersedes February 2017

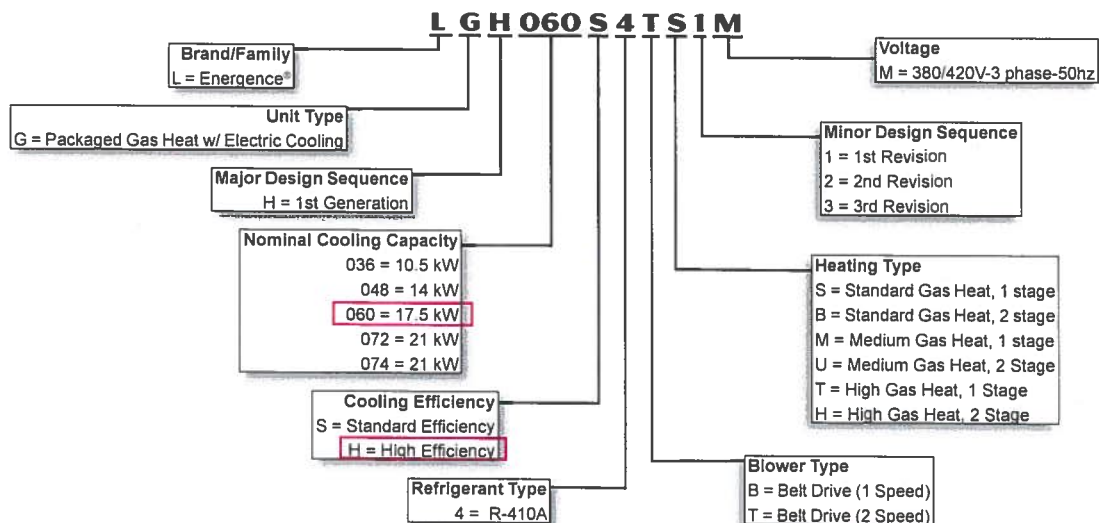


SMARTWIRE™ SYSTEM

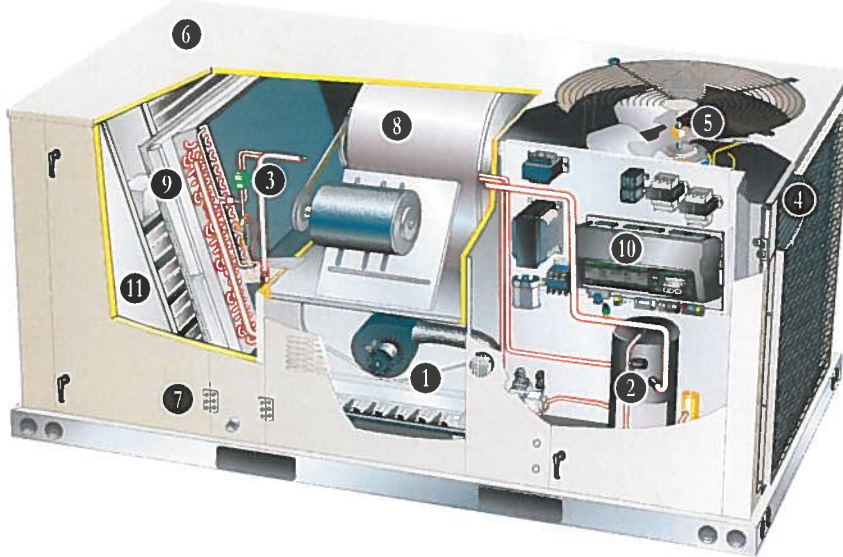


10.5 to 21 kW (3 to 6 Ton)
Net Cooling Capacity - 9.2 to 19.2 kW (32 400 to 65 500 Btuh)
Gas Input Heat Capacity - 16.7 to 38.7 kW (57 000 to 132 000 Btuh)

MODEL NUMBER IDENTIFICATION



FEATURES AND BENEFITS



Lennox' Energence® packaged rooftop unit product line was created to save energy with intelligence by offering some of the highest energy efficiency ratings available with a powerful, easy to use unit controller. This makes Energence® rooftop units perfect for business owners looking for a Heating, Ventilation, and Air Conditioning (HVAC) product with the lowest total cost of ownership. Energence® rooftop units feature:

- **Two-Stage Scroll Compressor** - All 10.5 to 17.5 kW and 21 kW (074) models feature a two-stage scroll compressor which allows Energence® rooftop units to deliver just the necessary amount of cooling needed to meet the space's demand. Single speed scroll compressor is furnished on 21 kW (072) models.
- **Lennox' Environ™ Coil System** - Smaller, lighter condenser coil.
- **Hinged Access Panels** - Provide quick access to components and protect panels and roof from damage during servicing.
- **Isolated Compressor Compartment** - Allows performance check during normal compressor operation without disrupting airflow.
- **Corrosion-Resistant Removable, Reversible Drain Pan** - Provides application flexibility, durability and improved serviceability.
- **Thermostatic Expansion Valves** - Provide peak cooling performance across the entire application range.
- **Humiditrol® Dehumidification System Option** - Patented system allows for independent control of temperature and humidity, providing enhanced comfort control.
- **MERV 13 (Minimum Efficiency Rating Value) Filters** - Available as factory or field option they provide an enhanced level of indoor air quality.
- **Foil-Faced Insulation** - Insulation on all internal surfaces that have contact with airflow helps minimize airborne fibers and improve indoor air quality (IAQ).
- **Common Components** - Many maintenance items are standard throughout the entire product line, reducing the need to carry different parts to the job or maintain in inventory.

Prodigy® Control System

Standard on every Energence® rooftop unit, the Prodigy® 2.0 unit controller is the center of the Prodigy® Control System. The intuitive user interface makes setup, troubleshooting and service easier than ever. Each unit tracks the runtime of every major component and records the date and time when service or maintenance is performed.



SmartWire™ System

The SmartWire™ system simplifies field sensor or thermostat installation through advanced connectors that are keyed and color-coded to help prevent miswiring. Not only is the wire coloring scheme standardized across all models, each connection is intuitively labeled to make troubleshooting and servicing quick and easy.

FEATURES AND BENEFITS

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PERFORMANCE/QUALITY

Components bonded for grounding to meet safety standards for servicing required by Underwriters Laboratories (UL) and the International Electrotechnical Commission (IEC).

Cooling performance is rated at test conditions included in Air-Conditioning, Heating and Refrigeration Institute (AHRI) Standard 210/240-2008 (036 thru 060) or 340/360-2007 (072/074) while operating at rated voltage and air volumes.

International Organization for Standardization (ISO) 9001 Registered Manufacturing Quality System.

CE MARK OPTION

The CE mark has been added to our rooftop product line as a configure to order (CTO) option. This optional construction allows units to be sold into countries requiring CE marking for rooftop products.



CE marked units meet the requirements of the Machinery Directive 2006/42/EC, Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC, and Gas Directive 90/396/EEC. Declaration of conformity certificates will be provided for each CE marked unit on demand.

Key features of this option over and above standard product features are:

- Touch-proof electrical components meeting the requirements of EN 60529.
- Branch circuits over 0.5 kW load have overcurrent protection.
- Rotary style/finger safe disconnect switch with locking handle prevents disconnect door from being opened with the power on. Padlock can be applied to lock the disconnect switch in the OFF position.
- The factory wiring has been redesigned for separation of high and low voltage circuits.

HEATING SYSTEM

- 1 Aluminized steel inshot burners, direct spark ignition, electronic flame sensor, combustion air inducer, redundant automatic single or dual stage gas valve with manual shut-off.

Heat Exchanger

Tubular construction, aluminized steel, life cycle tested.

Stainless Steel Heat Exchanger is required if mixed air temperature is below 7°C.

Limit Controls

Factory installed, redundant limit controls with fixed temperature setting.

Heat limit controls protect heat exchanger and other components from overheating.

Safety Switches

Flame roll-out switch, flame sensor and combustion air inducer proving switch protect system operation.

All safety switches are monitored by the Prodigy® 2.0 Unit Controller and diagnostic information is reported and recorded.

Required Selections

Gas Input Choice - Order one:

- Standard Gas Heat, 1 Stage (16.7 kW)
- Standard Gas Heat, 2 Stage (16.7 kW)
- Medium Gas Heat, 1 Stage (27.8 kW)
- Medium Gas Heat, 2 Stage (20.8/27.8 kW)
- High Gas Heat, 1 Stage (38.7 kW)
- High Gas Heat, 2 Stage (29.0/38.7 kW)

FEATURES AND BENEFITS

HEATING SYSTEM (continued)

Options/Accessories

Factory Installed

Stainless Steel Heat Exchanger

Required if mixed air temperature is below 7°C.

Factory or Field Installed

Low Temperature Vestibule Heater

Extends gas heat operation from -40°C (standard) down to -51°C. Electric heater automatically controls minimum temperature in gas burner compartment when temperature falls below -40°C.

Field Installed

Combustion Air Intake Extensions

Recommended for use with existing flue extension kits in areas where high snow can block intake air.

LPG/Propane Kits

Conversion kit to field change over units from Natural Gas to LPG/Propane.

Vertical Vent Extension Kit

Use to exhaust flue gases vertically above unit. Required when unit vent is too close to fresh air intakes per building codes. The vent kit also prevents ice formation on intake louvers.

Kit contains vent transition, drain cap and installation hardware.

NOTE - Straight vent pipe (51 mm B-Vent), vent tee and vent cap are not furnished and must be field supplied. Refer to kit instructions for additional information.

COOLING SYSTEM

Designed to maximize sensible and latent cooling performance at design conditions.

System can operate from -18°C to 52°C without any additional controls.

R-410A Refrigerant

Non-chlorine based, ozone friendly, R-410A.



2 Copeland Scroll Ultra Tech™ Two-Stage Compressor (10.5 to 17.5 kW and 21 kW 074 Models)

Scroll compressors on all models for high performance, reliability and quiet operation. Two-stage scroll compressors are furnished on 10.5 to 17.5 kW and 21 kW 072 models for increased part load efficiency.

Single speed scroll furnished on 21 (072) kW models.

Resiliently mounted on rubber grommets for quiet operation.

Compressor Crankcase Heater

Protects against refrigerant migration that can occur during low ambient operation.

Thermal Expansion Valve

Assures optimal performance throughout the application range.

Removable element head.

3 Filter/Drier

High capacity filter/drier protects the system from dirt and moisture.

High Pressure Switch

Protects the compressor from overload conditions such as dirty condenser coils, blocked refrigerant flow, or loss of outdoor fan operation.

Low Pressure Switch

Protects the compressor from low pressure conditions such as low refrigerant charge, or low/no airflow.

Freezestat

Protects the evaporator coil from damaging ice build-up due to conditions such as low/no airflow, or low refrigerant charge.

4 Lennox' Environ™ Coil System

Condenser coil features lightweight, all aluminum brazed fin construction.

Constructed of three components:

a flat extrusion tube, fins in-between the flat extrusion tube and two refrigerant manifolds.

Environ™ Coil System Features:

- Improved heat transfer performance due to high primary surface area (flat tubes) versus secondary surface (fins).
- Smaller internal volume (reduced refrigerant charge).
- High durability (all aluminum construction).
- Fewer brazed joints.
- Compact design (reduces unit weight).
- Easy maintenance/cleaning.

Face-split design.

Mounting brackets with rubber inserts secure coil to unit providing vibration dampening and corrosion protection.

Evaporator Coil

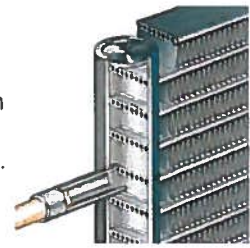
Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction for improved heat transfer. Factory leak tested. Cross row circuiting with rifled tubing optimizes both sensible and latent cooling capacity.

Condensate Drain Pan

Plastic pan with positive slope.

Side or bottom drain connections.

Reversible to allow connection at back of unit.



FEATURES AND BENEFITS

COOLING SYSTEM (continued)

5 Outdoor Coil Fan Motor

Thermal overload protected, totally enclosed, permanently lubricated sleeve (036 and 048 models) or ball bearings (060, 072 and 074 models), shaft up, wire basket mount.

Outdoor Coil Fan

Polyvinyl chloride (PVC) coated fan guard furnished.

Required Selections

Cooling Capacity

Specify nominal cooling capacity of the unit.

Options/Accessories

Factory Installed

Conventional Fin/Tube Condenser Coil

(replaces Environ Coil System)

Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction.

Service Valves

Fully serviceable brass valves installed in discharge & liquid lines.

Not available for units equipped with Environ™ coil system or Humiditrol option.

Factory or Field Installed

Condensate Drain Trap

Field installed only, may be factory enclosed to ship with unit.

Available in copper or polyvinyl Chloride (PVC).

Drain Pan Overflow Switch

Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.

CABINET

6 Construction

Heavy-gauge steel panels and full perimeter heavy-gauge galvanized steel base rail provides structural integrity for transportation, handling, and installation.

Base rails have rigging holes.

Three sides of the base rail have forklift slots.

Raised edges around duct and power entry openings in the bottom of the unit provide additional protection against water entering the building.

Airflow Choice

Units are shipped in downflow (vertical) configuration, can be field converted to horizontal airflow configuration without any optional kits.

Duct Flanges

Provided for horizontal duct attachment.

Power/Gas Entry

Electrical and gas lines can be brought through the unit base or through horizontal access knock-outs.

Exterior Panels

Constructed of heavy-gauge, galvanized steel with a two-layer enamel paint finish.

Insulation

All panels adjacent to conditioned air are fully insulated with non-hygroscopic fiberglass insulation.

Unit base is fully insulated. The insulation also serves as an air seal to the roof curb, eliminating the need to add a seal during installation.

7 Access Panels

Hinged tool-less access panels are provided for the economizer/filter section, and compressor/controls section.

All hinged panels have seals and quarter-turn latching handles to provide a tight air and water seal.

NOTE - Optional Economizers, Power Exhaust, Outdoor Air Dampers and Barometric Relief Dampers for 060/072/074 models include a filler panel for proper cabinet fit.

Required Selections

Airflow Configuration

Specify horizontal or downflow.

Options/Accessories

Factory Installed

Corrosion Protection

A completely flexible immersed coating with an electrodeposited dry film process. (AST ElectroFin E-Coat) Meets Mil Spec MIL-P-53084, ASTM B117 Standard Method Salt Spray Testing.

Indoor Corrosion Protection:

- Coated coil
- Coated reheat coil (Humiditrol)
- Painted blower housing
- Painted base

Outdoor Corrosion Protection:

- Coated coil
- Painted base

Field Installed

Combination Coil/Hail Guards

Heavy gauge steel frame painted to match cabinet with expanded metal mesh to protect the outdoor coil from damage.

FEATURES AND BENEFITS

BLOWER

A wide selection of supply air blower options are available to meet a variety of airflow requirements.

Blower Motor Choice

Overload protected, equipped with ball bearings.

Belt drive motors with two-speed capability (low static/high static) are available on 036, 048, 060 and 074 models in several different sizes to maximize air performance.

Single-speed belt drive motor is available on 072 models.

8 Supply Air Blower

Forward curved blades, blower wheel is statically and dynamically balanced.

All belt drive motors have adjustable pulley for speed change.

Ordering Information

Specify motor kW and drive kit number when base unit is ordered.

Required Selections

Order one drive kit, see Drive Kit Specifications Table.

ELECTRICAL

SmartWire™ System

Advanced wiring connectors are keyed and color-coded to prevent miswiring. Wire coloring scheme is standardized across all models. Each connection is intuitively labeled to make troubleshooting and servicing quick and easy.

Electrical Plugs

Positive connection electrical plugs are used to connect common accessories or maintenance parts for easy removal or installation.

INDOOR AIR QUALITY

9 Air Filters

Disposable 51 mm filters furnished as standard.

Option/Accessories

Factory or Field Installed

Healthy Climate® High Efficiency Air Filters

Disposable MERV 8 or MERV 13 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 51 mm pleated filters.

Healthy Climate® UVC Germicidal Lamps



Helps eliminate mold and bacterial growth on the evaporator and drain pans. Improves indoor air quality and maintains efficiency of system by reducing fouling of evaporator coil.

Field Installed

Indoor Air Quality (CO₂) Sensors

Monitors CO₂ levels, reports to the Prodigy® 2.0 Unit Controller which adjusts economizer dampers as needed.

PRODIGY® CONTROL SYSTEM

10 PRODIGY 2.0 UNIT CONTROLLER



The Prodigy 2.0 unit controller is a microprocessor-based controller that provides flexible control of all unit functions.

Features:

LCD Display - Easy to read menu with buttons for menu navigation. during setup and diagnostics. 4 lines x 20 character display.

Menu LEDs - Four LEDs (*Data, Setup, Service, Settings*) aid in menu navigation.

Main Menu and Help Buttons - Quick navigation to home screen and built-in help functions.

Scroll, Value Adjustment Select and Save Buttons

Simplified Setup Procedure - SETUP menu insures proper installation and setup of the rooftop unit.

Profile Setup - Copy key settings between units with the same configuration greatly reducing setup time.

USB Port - Allows a technician to download and transfer unit information to help verify service was performed.

USB drive will also allow updating software on the Prodigy Control System to obtain enhanced functionality without the need to change components.



Unit Controller Software

Unit Self-Test - Unit Controller can perform a rooftop unit self-test to verify individual critical component and system performance. Included is an economizer test function that helps assure the economizer is operating correctly.

Time Clock with Run-time Information

Built-In Functions Include:

Adjustable Blower On/Off Delay

Built-in Control Parameter Defaults

Compressor Time-Off Delay

DDC Compatible

Dirty Filter Switch Input

Discharge Air Temperature Control

Display/Sensor Readout

Economizer Control Options - See Economizer / Outdoor Air / Exhaust Options.

Fresh Air Tempering

Extensive Unit Diagnostics - Over 100 diagnostic and status messages in English.

Exhaust Fan Control Modes - Fresh air damper position.

Permanent Diagnostic Code Storage

Field Adjustable Control Parameters - Over 200 different control settings.

Indoor Air Quality Input - Demand Control Ventilation ready

Low Ambient Controls - Cooling operation down to 0°F.

Gas Valve Time Delay Between First and Second Stage

Minimum Compressor Run Time

Network Capable - Can be daisy chained to other units or controls.

Night Setback Mode

Return Air Temperature Limit Control

Safety Switch Input - Allows Controller to respond to a external safety switch trip.

Service Relay Output

Smoke Alarm Mode - Four choices (unit off, positive pressure, negative pressure, purge).

Staging - Up to 2 heat/2 cool (standard Prodigy 2.0 unit controller thermostat input). Up to 3 cool with additional relay. Up to 4 cool with room sensor or network operation.

“Strike Three” Protection

Gas Reheat Control - Simultaneous heating and cooling operation for controlling humidity for process air applications such as supermarkets.

NOTE - Prodigy Control System features shown vary with the type of rooftop unit the control is installed in.

NOTE - See separate Prodigy Control System Product Specifications Bulletin for additional information.

On Demand Dehumidification - Monitors and controls condenser hot gas reheat operation with Humiditrol® option.

Thermostat Bounce Delay

Warm Up Mode Delay

LED Indicators

PC Interface - Connect to the Prodigy 2.0 unit controller from a PC with the Lennox Unit Controller Software.

Room Sensor Operation - Controls temperature.

Options/Accessories

Factory or Field Installed

Blower Proving Switch

Monitors blower operation, shuts down unit if blower fails.

Dirty Filter Switch

Senses static pressure increase indicating dirty filter condition.

Controls Options

Factory or Field Installed

Fresh Air Tempering

Used in applications with high outside air requirements. The Controller energizes the first stage heat as needed to maintain a minimum supply air temperature for comfort, regardless of the thermostat demand. When ordered as a factory option, the sensor ships with the unit but must be field installed.

Smoke Detector

Photoelectric type, installed in supply air section, return air section or both sections. Available with power board and single sensor (supply or return) or power board and two sensors (supply and return). Power board located in unit control compartment.

OPTIONS / ACCESSORIES

Controls Options (continued)

Interoperability via BACnet® or LonTalk® Protocols

Communication compatible with third-party automation systems that support the BACnet Application Specific Controller device profile, LonMark® Space Comfort Controller functional profile, or LonMark Discharge Air Controller functional profile.

Commercial Control Systems

Aftermarket DDC

Novar® ETM modules and options.

Thermostats

Control system and thermostat options. Aftermarket unit controller options.

Field Installed

Humidity Sensor Kit

Humidity sensor required with factory installed Humiditrol® dehumidification option or Supermarket reheat field selectable option.

General Purpose Control Kit

Plug-in control provides additional analog and digital inputs/outputs for field installed options.

12 ECONOMIZER OPTIONS

Standard and High Performance Models available.

Economizer operation is set and controlled by the Prodigy® 2.0 Unit Controller.

Simple plug-in connections from economizer to unit controller for easy installation.

Optional sensors may be used instead of unit sensors to determine whether outdoor air is suitable for free cooling. See Options/Accessories table.

Factory or Field Installed

Economizer

(Standard and High Performance Common Features)

Outdoor Air Hood is furnished.

Factory installed Economizer can be ordered with three exhaust options:

- Barometric Relief Dampers and Exhaust Hood.
- Power Exhaust Fan (includes Exhaust Hood).
NOTE - See Power Exhaust Fan section for additional requirements.
- No Exhaust.

Field installed Economizer includes Barometric Relief Dampers with Exhaust Hood.

Barometric Relief Dampers allow relief of excess air, aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle, bird screen furnished. Hood is furnished.

Required when Economizer is factory installed with field installed Power Exhaust Fan option. Required (less exhaust hood) when Economizer is factory installed with factory installed Power Exhaust Fan option

Demand Control Ventilation (DCV) ready using optional CO₂ sensors.

Horizontal Economizer Conversion kit is available for field installation.

Standard Economizer Features

Gear-driven action, return air and outdoor air dampers, plug-in connections to unit, neoprene blade edge seals, 24-volt, fully-modulating spring return motor.

NOTE: The Free Cooling default setting for outdoor air temperature sensor is 13°C.

High Performance Economizer Features

Gear-driven action, high torque 24-volt fully-modulating spring return damper motor, return air and outdoor air dampers, plug-in connections to unit, nylon bearings, enhanced neoprene blade edge seals and flexible stainless steel jamb seals to minimize air leakage. Refer to Installation Instructions for complete setup information.

Differential Sensible Control

Factory setting. Uses outdoor air and return air sensors that are furnished with the unit. The Prodigy® 2.0 Unit Controller compares outdoor air temperature and return air and using setpoints, enables the economizer when the outdoor air temperature is below the configured setpoint and cooler than return air.

NOTE - Differential Sensible Control can be configured in the field to provide Offset Differential Sensible Control or Single Sensible Control.

In Offset Differential Sensible Control mode, the economizer is enabled if the temperature differential (offset) between outdoor air and return air reaches the configured setpoint. In Single Sensible Control mode, the economizer is enabled when outdoor air temperature falls below the configured setpoint.

Global Control

The unit controller communicates with a DDC system with one global sensor (enthalpy or sensible) to determine whether outside air is suitable for free cooling on all units connected to the control system. Sensor must be field provided.

OPTIONS / ACCESSORIES

ECONOMIZER OPTIONS **(continued)**

Factory or Field Installed

Single Enthalpy Temperature Control

Outdoor air enthalpy sensor enables Economizer if the outdoor enthalpy is less than the setpoint of the control.

Differential Enthalpy Control

Order two Single Enthalpy Controls. One is field installed in the return air section, the other in the outdoor air section. Allows the economizer control to select between outdoor air or return air, whichever has lower enthalpy.

Field Installed

Outdoor Air CFM Control

Maintains constant outdoor air volume levels on the supply air fan and varying unit airflows. Using information from a velocity sensor located in the rooftop unit outdoor air section, the Prodigy® 2.0 unit controller changes the economizer position to help minimize the effect of supply fan speed changes on outdoor air volume levels. Setpoint for outdoor air volume is established by field testing.

NOTE - Not available with Demand Control Ventilation (CO₂ Sensor) or Building Pressure Control.

Building Pressure Control

Maintains constant building pressure level.

Using information from a differential pressure between the outdoor air and the building air, the Prodigy® 2.0 unit controller changes the economizer position to help maintain a constant building pressure.

NOTE - Not available with Demand Control Ventilation (CO₂ Sensor) or Outdoor Air CFM Control.

Horizontal Economizer Conversion Kit

Insulated panel covers the bottom return air opening on the unit base to convert downflow economizer to horizontal air flow.

EXHAUST OPTIONS

Factory or Field Installed

Power Exhaust Fan

Installs internal to unit for downflow applications with economizer option. Provides exhaust air pressure relief. Interlocked to run when supply air blower is operating, fan runs when outdoor air dampers are 50% open (adjustable), motor is overload protected.

Fan is 406 mm diameter with 4 fan blades and a 0.25 kW motor.

NOTE - If Power Exhaust is field installed with a factory installed Economizer, the Economizer must be ordered with No Exhaust option and Barometric Relief Dampers and Exhaust Hood must also be ordered separately for field installation.

NOTE - If Power Exhaust is factory installed with a factory installed Economizer, the Barometric Relief Dampers without Exhaust Hood must also be ordered separately for field installation.

OUTDOOR AIR OPTIONS

Factory or Field Installed

Outdoor Air Dampers - Downflow or Horizontal

Single blade damper, 0 to 25% (fixed) outdoor air adjustable, installs in unit.

Automatic model features fully modulating spring return damper motor with plug-in connection. Manual model features a slide damper. Maximum mixed air temperature in cooling mode: 38°C.

Outdoor Air Hood is furnished.

ROOF CURBS

Nailer strip furnished, mates to unit, US National Roofing Contractors Approved, shipped knocked down.

Hybrid Roof Curbs, Downflow

Roof curb can be assembled using interlocking tabs to fasten corners together. No tools required.

Curb can also be fastened together with furnished hardware.

Available in 203, 356, 457, and 610 mm heights.

See Options/Accessories table.

Adjustable Pitch Curb

Fully adjustable pitch curb provides a level platform for rooftop units allowing flexible installations on roofs with uneven or sloped angles.

Maximum slope is 19 mm per 300 mm in any direction.

Uses interlocking tabs to fasten corners together. No tools required.

Hardware is furnished to connect upper curb with lower curb.

Available in 356 mm height.

Adaptor Curbs (not shown)

Curbs are regionally sourced. Dimensions will vary based upon the source. Contact your local sales representative for a detailed cut sheet with applicable dimensions.

CEILING DIFFUSERS

Ceiling Diffusers (Flush or Step-Down)

Diffuser face and grilles with white powder coat finish, insulated (UL listed duct liner), diffuser box with collars for duct connection, fixed blades (flush diffusers) and double deflection blades (step-down diffusers), provisions for suspending, internally sealed (prevents recirculation), removable return air grille, adapts to T-bar ceiling grids or plaster ceilings.

Transitions (Supply and Return)

Used with diffusers, installs in roof curb, galvanized steel construction, flanges furnished for duct connection to diffusers, fully insulated.

OPTIONS / ACCESSORIES

HUMIDITROL DEHUMIDIFICATION® SYSTEM

NOTE - Not available with Environ™ Coil System. Conventional Fin/Tube condenser coil must be ordered as a factory option.

Factory installed option designed to control humidity.

Provides dehumidification on demand using American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) 90.1 recommended method for comfort conditioning humidity control.

Unit comes equipped with one row reheat coil, solenoid valve and humidity controller.

In addition to a thermostat or room sensor used for conventional operation, a humidity sensor is required and must be located in the occupied space. Remote Mounted Humidity Sensor Kit is required for field installation.

The humidity sensor provides input to the Unit Controller which is used to control activation of the dehumidification operation.

Reheat controls are located in the compressor control section of the unit for easy access.

Benefits

Improves indoor air quality.
Helps prevent damage due to high humidity levels.
Improves comfort levels by reducing space humidity levels.

OPERATION

No Dehumidification Demand

The unit will operate conventionally whenever there is a demand for cooling or heating and no dehumidification demand.

Free cooling is only permitted when there is no demand for dehumidification.

Dehumidification Demand Only

The Unit Controller is factory set at 60% relative humidity setpoint and can be adjusted at the Unit Controller or with optional Unit Controller Software.

Reheat operation will initiate on a dehumidification demand and does not require a cooling demand.

The unit will operate in the dehumidification mode until the relative humidity of the conditioned space is below the setpoint.

The reheat coil is sized to provide 20°C to 24°C supply air during reheat operation.

This reduces sensible cooling capacity and extends compressor run time to control humidity when the cooling load is low.

A solenoid valve diverts hot gas from the compressor to the reheat coil.

The cooled and dehumidified air from the evaporator is reheated as it passes through the reheat coil.

The de-superheated and partially condensed refrigerant continues to the outdoor condenser coil where condensing is completed. The unit will continue to operate in this mode until the dehumidification demand is satisfied.

See Sequence of Operation for additional information.

Dehumidification and Cooling Demand (Thermostat/Room Sensor Application)

Two-stage compressor models (036, 048, 060, 074)

If both a dehumidification and a Y1 cooling demand occur, the system will operate in the full cooling mode at first stage indoor air flow. If a Y2 cooling demand occurs along with a dehumidification demand, the system operates in full cooling mode at full cooling airflow until the Y2 cooling demand is satisfied. Then the system will revert to the dehumidification mode if a dehumidification mode demand is present.

Single speed compressor model (072H)

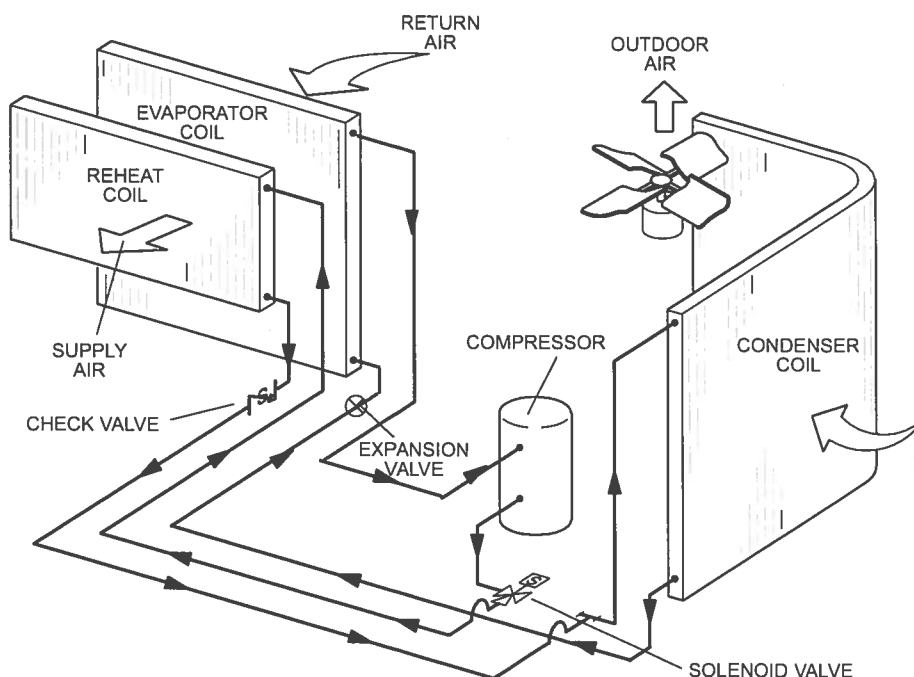
If both a dehumidification and a cooling demand occur, the system will operate in cooling until the cooling demand is satisfied. Then the system will energize the dehumidification mode.

Options/Accessories

Humidity Sensor Kit

Remote Mounted Humidity sensor required with factory installed Dehumidification Option or Supermarket reheat field selectable option.

TYPICAL DEHUMIDIFICATION SCHEMATIC



OPTIONS / ACCESSORIES

Item	Model Number	Catalog Number	Unit				
			036	048	060	072	074
CE MARK							
CE Marked Unit		Factory	O	O	O	O	O
COOLING SYSTEM							
Condensate Drain Trap	Polyvinyl Chloride (PVC) - C1TRAP20AD2	76W26	OX	OX	OX	OX	OX
	Copper - C1TRAP10AD2	76W27	OX	OX	OX	OX	OX
Drain Pan Overflow Switch	E1SNSR71AD1	68W88	OX	OX	OX	OX	OX
Efficiency	Standard	Factory	O	O	O		
	High	Factory				O	O
Service valves (not for Environ™ Coil System or Humiditrol equipped units)		Factory	O	O	O	O	O
HEATING SYSTEM							
Bottom Gas Piping Kit	T1GPKT01AN1	19W50	OX	OX	OX	OX	OX
Combustion Air Intake Extensions	T1EXTN10AN1	19W51	X	X	X	X	X
Gas Heat Input	Standard One-Stage - 16.7 kW input	Factory	O	O	O	O	O
	Standard Two-Stage - 12.6/16.7 input	Factory	O	O	O	O	O
	Medium One-Stage - 27.8 kW input	Factory	O	O	O	O	O
	Medium Two-Stage - 20.8/27.8 kW input	Factory	O	O	O	O	O
	High One-Stage - 38.7 kW input	Factory		O	O	O	O
	High Two-Stage - 29.0/38.7 kW input	Factory		O	O	O	O
	LPG/Propane Conversion Kits	For one-stage models - C1PROP10AP2	14N20	X	X	X	X
	For two-stage models - C1PROP20AP2	14N21	X	X	X	X	X
Stainless Steel Heat Exchanger		Factory	O	O	O	O	O
Vertical Vent Extension	C1EXTN20FF1	31W62	X	X	X	X	X
BLOWER - SUPPLY AIR							
Drive Kits See Blower Data Tables for selection	Belt Drive - 0.47 kW (2 Speed)	Factory	O	O			
	Belt Drive - 0.62 kW (2 Speed)	Factory	O		O		O
	Belt Drive - 1.24 kW (2 Speed)	Factory		O	O		O
	Belt Drive - 0.75 kW (2 Speed)	Factory					O
	Belt Drive - 1.5 kW (2 Speed)	Factory					O
	Belt Drive - 1.5 kW Standard Efficiency	Factory				O	
	Kit A01 - T1DRKT001-1 - 374-842 rev/min	Factory	O				
	Kit A02 - T1DRKT002-1 - 414-931 rev/min	Factory		O			
	Kit A03 - T1DRKT003-1 - 463-1042 rev/min	Factory			O		
	Kit A05 - T1DRKT005-1 - 498-1122 rev/min	Factory	O				
	Kit A06 - T1DRKT006-1 - 595-1191 rev/min	Factory		O			
	Kit A07 - T1DRKT007-1 - 673-1290 rev/min	Factory			O		
	Kit AA02 - T1DRKT002AP1 - 527-729 rev/min	Factory				O	
	Kit AA03 - T1DRKT003AP1 - 665-921 rev/min	Factory				O	O
	Kit AA04 - T1DRKT004AP1 - 768-1023 rev/min	Factory				O	O
	CABINET						
Combination Coil/Hail Guards	C1GARD51A-1	13R98	X	X			
	C1GARD51AT1	13T03			X	X	X
Corrosion Protection (indoor coil / outdoor coil)		Factory	O	O	O	O	O

NOTE - Catalog and model numbers shown are for ordering field installed accessories.
OX - Configure To Order (Factory Installed) or Field Installed
O = Configure To Order (Factory Installed)
X = Field Installed

OPTIONS / ACCESSORIES

Item	Model Number	Catalog Number	Unit				
			036	048	060	072	074
CONTROLS							
Blower Proving Switch	C1SNSR35FF1	53W65	OX	OX	OX	OX	OX
Commercial Controls	Novar® LSE	Factory	O	O	O	O	O
	Novar 2051 - E0CTRL30A1	64W72	OX	OX	OX	OX	OX
Prodigy® Control System - BACnet® Module - C0CTRL60AE1L		59W51	OX	OX	OX	OX	OX
Prodigy® Control System - LonTalk® Module - C0CTRL65FF1		54W27	OX	OX	OX	OX	OX
Dirty Filter Switch	E1SNSR55AP1	53W66	OX	OX	OX	OX	OX
General Purpose Control Kit	E1GPBK30C1	13J78	X	X	X	X	X
Fresh Air Tempering	C1SNSR75AD1	58W63	OX	OX	OX	OX	OX
Smoke Detector - Supply or Return (Power board and one sensor)	C1SNSR44AP1	53W78	OX	OX	OX	OX	OX
Smoke Detector - Supply and Return (Power board and two sensors)	C1SNSR43AP1	53W79	OX	OX	OX	OX	OX
ELECTRICAL							
Voltage 50 hz with neutral	380/420V - 3 phase	Factory	O	O	O	O	O
ECONOMIZER							
Standard Economizer With Outdoor Air Hood (Sensible Control)							
Standard Economizer - Includes Barometric Relief Dampers and Exhaust Hood	E1ECON30A-2-	90W59	OX	OX	OX	OX	OX
Standard Economizer - Includes Barometric Relief Dampers and Exhaust Hood and Power Exhaust		Factory	O	O	O	O	O
Standard Economizer - No Exhaust Option		Factory	O	O	O	O	O
High Performance Economizer With Outdoor Air Hood (Sensible Control)							
High Performance Economizer - Includes Barometric Relief Dampers with Exhaust Hood	E1ECON17A-1	10U54	OX	OX	OX	OX	OX
High Performance Economizer - No Exhaust Option		Factory	O	O	O	O	O
Economizer Accessories							
Horizontal Economizer Conversion Kit	T1HECK00AN1	17W45	X	X	X	X	X
Economizer Controls							
Differential Enthalpy	Order 2 - C1SNSR64FF1	53W64	OX	OX	OX	OX	OX
Sensible Control	Sensor is Furnished	Factory	O	O	O	O	O
Single Enthalpy	C1SNSR64FF1	53W64	OX	OX	OX	OX	OX
Global Control	Sensor Field Provided	Factory	O	O	O	O	O
Building Pressure Control	E1GPBK20C1	13J77	X	X	X	X	X
Outdoor Air CFM Control	E1GPBK10C1	13J76	X	X	X	X	X
OUTDOOR AIR							
Outdoor Air Dampers With Outdoor Air Hood							
Motorized	C1DAMP21A-1	15D17	OX	OX	OX	OX	OX
Manual	C1DAMP11A-2	15D18	OX	OX	OX	OX	OX
POWER EXHAUST FAN (DOWNFLOW ONLY)							
Standard Static	380/420V-3ph - C1PWRE10A-1M	79W93	OX	OX	OX	OX	OX
Note: Factory installed Power Exhaust Fan includes Exhaust Hood. Barometric Relief Dampers without Exhaust Hood are required (order separately).							
Note: Field installed Power Exhaust Fans do not include Exhaust Hood. Barometric Relief Dampers with Exhaust Hood are required (order separately).							

NOTE - Catalog and model numbers shown are for ordering field installed accessories.
OX - Configure To Order (Factory Installed) or Field Installed
O = Configure To Order (Factory Installed)
X = Field Installed

OPTIONS / ACCESSORIES

Item	Model Number	Catalog Number	Unit				
			036	048	060	072	074
BAROMETRIC RELIEF							
¹ Barometric Relief Dampers with Exhaust Hood	C1DAMP50A-1-	74W38	X	X	X	X	X
² Barometric Relief Dampers without Exhaust Hood	C1DAMP50A-2-	72W89	X	X	X	X	X
HUMIDITROL® CONDENSER REHEAT OPTION							
Humiditrol (NOTE - Not available with Environ Coil System. Conventional Fin/Tube condenser coil must be ordered as a factory option)	Factory		O	O	O	O	O
Humidity Sensor Kit, Remote mounted (required)	COSNSR31AE-1	17M50	X	X	X	X	X
INDOOR AIR QUALITY							
Air Filters							
Healthy Climate® High Efficiency Air Filters Order 4 per unit	MERV 8 (406 x 508 x 51 mm) - C1FLTR15A-1-	54W20	OX	OX			
	MERV 13 (406 x 508 x 51 mm) - T1FLTR40A-1-	52W37	OX	OX			
	MERV 8 (508 x 508 x 51 mm) - C1FLTR15D-1-	54W21			OX	OX	OX
	MERV 13 (508 x 508 x 51 mm) - C1FLTR40D-1-	52W39			OX	OX	OX
Replaceable Media Filter With Metal Mesh Frame (includes non-pleated filter media)	406 x 508 x 51 mm (Order 4) - K1FLTR30A-1	39W09	X	X			
	508 x 508 x 51 mm (Order 4) - K1FLTR30A-2	44N60			X	X	X
Indoor Air Quality (CO ₂) Sensors							
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	77N39	X	X	X	X	X
Sensor - Wall-mount, off-white plastic cover, no display	C0SNSR52AE1L	87N53	X	X	X	X	X
Sensor - Black plastic case with LCD display, rated for plenum mounting	C0SNSR51AE1L	87N52	X	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	87N54	X	X	X	X	X
CO ₂ Sensor Duct Mounting Kit - for downflow applications	C0MISC19AE1-	85L43	X	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO ₂ sensors (87N53 or 77N39)	C0MISC16AE1-	90N43	X	X	X	X	X
UVC Germicidal Lamps							
³ Healthy Climate® UVC Light Kit (220V-1ph)	C1UVCL10AN1-	50W90	OX	OX	OX	OX	OX
ROOF CURBS							
Hybrid Roof Curbs, Downflow							
203 mm height	C1CURB70A-1	11F50	X	X	X	X	X
356 mm height	C1CURB71A-1	11F51	X	X	X	X	X
457 mm height	C1CURB72A-1	11F52	X	X	X	X	X
610 mm height	C1CURB73A-1	11F53	X	X	X	X	X
Adjustable Pitch Curb							
356 mm height	C1CURB55AT1	43W27	X	X	X	X	X
Transition Curb							
Matches Emergence® 036-072 Units to existing L Series® Curbs	E1CURB60A-1	20W06	X	X	X	X	X
CEILING DIFFUSERS							
Step-Down - Order one	RTD9-65S	13K60	X	X	X		
	RTD11-95S	13K61				X	X
Flush - Order one	FD9-65S	13K55	X	X	X		
	FD11-95S	13K56				X	X
Transitions (Supply and Return) - Order one	T1TRAN10AN1	17W53	X	X	X		
	T1TRAN20N-1	17W54				X	X

¹ Required when Economizer is factory installed (no exhaust option) with field installed Power Exhaust Fan option.

² Required when Economizer is factory installed with factory installed Power Exhaust Fan option.

³ Lamps operate on 220V single-phase power supply. Step-down transformer may be ordered separately for 380/420V primary to 220V secondary units. Alternately, 220V power supply may be used to directly power the UVC ballast(s).

NOTE - Catalog and model numbers shown are for ordering field installed accessories.

OX - Configure To Order (Factory Installed) or Field Installed

O = Configure To Order (Factory Installed)

X = Field Installed

SPECIFICATIONS

General Data		Nominal kW (Tons)	10.6 kW (3 Ton)	14 kW (4 Ton)	17.6 kW (5 Ton)	21 kW (6 Ton)	21 kW (6 Ton)
Model Number			LGH036S4T	LGH048S4T	LGH060S4T	LGH072H4B	LGH074H4T
Efficiency Type			Standard	Standard	Standard	High	High
Blower Type			Two Speed Belt Drive	Two Speed Belt Drive	Two Speed Belt Drive	Single Speed Belt Drive	Two Speed Belt Drive
Cooling Performance	Gross Cooling Capacity - kW (Btuh)		9.5 (32 400)	12.6 (43 000)	16.4 (56 000)	19.6 (67 000)	18.3 (62 300)
	Net Cooling Capacity - kW (Btuh)		¹ 9.2 (31 400)	¹ 12.2 (41 500)	¹ 15.9 (54 500)	² 19.2 (65 500)	² 17.5 (59 700)
	AHRI Rated Air Flow - L/s (cfm)		565 (1200)	755 (1600)	825 (1750)	905 (1920)	991 (2100)
	Total Unit Power - kW		2.7	3.7	4.5	5.2	4.9
	SEER (Btuh/Watt)		¹ 15.0	¹ 15.0	¹ 15.5	---	---
	EER (Btuh/Watt)		¹ 11.5	¹ 11.8	¹ 12.0	² 12.0	² 12.2
	IEER (Btuh/Watt)		---	---	---	² 13.5	² 16.2
Refrigerant Type			R-410A	R-410A	R-410A	R-410A	R-410A
Refrigerant Charge	Environ™ Coil System		1.90 kg (4 lbs. 3 oz.)	2.38 kg (5 lbs. 4 oz.)	3.26 kg (7 lbs. 3 oz.)	3.40 kg (7 lbs. 8 oz.)	3.23 kg (7 lbs. 2 oz.)
	Conventional Fin/Tube Coil		3.86 kg (8 lbs. 8 oz.)	5.05 kg (11 lbs. 2 oz.)	6.35 kg (14 lbs. 0 oz.)	6.24 kg (13 lbs. 12 oz.)	6.21 kg (13 lbs. 11 oz.)
	Conventional Fin/Tube With Humiditrol® Option		4.17 kg (9 lbs. 3 oz.)	5.56 kg (12 lbs. 4 oz.)	7.26 kg (16 lbs. 0 oz.)	6.89 kg (15 lbs. 3 oz.)	7.12 kg (15 lbs. 11 oz.)
	Gas Heating Options Available - See page 15		Standard (1 stage) or Medium (1 or 2 stage)	Standard (1 stage), Medium (1 or 2 Stage) or High (1 or 2 Stage)	Standard (1 stage), Medium (1 or 2 Stage) or High (1 or 2 Stage)	Standard (1 stage), Medium (1 or 2 Stage) or High (1 or 2 Stage)	Standard (1 stage), Medium (1 or 2 stage) or High (1 or 2 stage)
Compressor Type (number)			Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)
Outdoor Coil (Fin/Tube)	Net face area (total) - m² (sq. ft.)		1.09 (11.70)/ 1.45 (15.60)	1.09 (11.70)/ 1.45 (15.60)	1.65 (17.80)/ 1.79 (19.30)	1.65 (17.80)/ 1.79 (19.30)	1.65 (17.80)/ 1.79 (19.30)
	Tube diameter - mm (in.)		18 (0.71)/ 9.5 (3/8)	18 (0.71)/ 9.5 (3/8)	18 (0.71)/ 9.5 (3/8)	18 (0.71)/ 9.5 (3/8)	---
	Number of rows		1 (1.5)	1 (2)	1 (2)	1 (2)	1 (2)
	Fins per m (Fins per inch)		788 (20)	788 (20)	788 (20)	788 (20)	788 (20)
Outdoor Coil Fans	Motor - (No.) W (horsepower)		(1) 124 (1/6)	(1) 185 (1/4)	(1) 250 1/3	(1) 250 (1/3)	(1) 249 (1/3)
	Motor rev/min		688	688	896	896	900
	Total Motor Input - watts		128	176	313	313	284
	Diameter - (No.) mm (in.)		(1) 610 (24)	(1) 610 (24)	(1) 610 (24)	(1) 610 (24)	(1) 610 (24)
	Number of blades		3	3	3	3	3
Indoor Coils	Total air volume - L/s (cfm)		1180 (2500)	1295 (2750)	1885 (4000)	1885 (4000)	1848 (3900)
	Net face area (total) - m² (sq. ft.)		0.72 (7.78)	0.72 (7.78)	0.90 (9.72)	0.90 (9.72)	0.90 (9.72)
	Tube diameter - mm (in.)		9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)	9.5 (3/8)
	Number of rows		3	4	4	4	4
	Fins per m (Fins per inch)		551 (14)	551 (14)	551 (14)	551 (14)	551 (14)
Drain connection (Number) and size - in.			(1) 1 NPT	(1) 1 NPT	(1) 1 NPT	(1) 1 NPT	(1) 1 NPT
Expansion device type			Balance port thermal expansion valve, removable head				
³ Indoor Blower and Drive Selection	Nominal Motor kW (hp)		0.47 (0.63)	0.47 (0.63)	0.62 (0.83)	1.5 (2)	0.75 (1) 1.5 (2)
	Maximum usable motor kW (hp)		0.54 (0.72)	0.54 (0.72)	0.71 (0.95)	1.7 (2.3)	0.88 (1.15)
	Kit # (rev/min range)		A01 (low 374-561) (high 546-842)	A02 (low 414 621) (high 621-931)	A03 (low 463-694) (high 694-1042)	AA02 (527-729) AA03 (665-921) AA04 (768-1023)	---
	Nominal Motor kW (hp)		0.62 (0.83)	1.24 (1.66)	1.24 (1.66)	---	---
	Maximum usable motor kW (hp)		0.71 (0.95)	1.42 (1.91)	1.42 (1.91)	---	---
	Kit # (rev/min range)		A05 (low 498-748) (high 748-1122)	A06 (low 595-794) (high 893-1191)	A07 (low 673-860) (high 1010 -1290)	---	---
	Blower wheel nominal diameter x width - mm (in.)		(1) 254 x 254 10 x 10)	(1) 254 x 254 (10 x 10)	(1) 254 x 254 (10 x 10)	(1) 381 x 229 (15 x 9)	(1) 381 x 229 (15 x 9)
	Filters	Type of filter	disposable				
	Number and size - mm (in.)		(4) 406 x 508 x 51 (16 x 20 x 2)				
	Electrical characteristics		380/420V-50 Hz-3 phase with neutral				

NOTE - Net capacity includes evaporator blower motor heat deduction. Gross capacity does not include evaporator blower motor heat deduction.

^{1,2} Tested at conditions included in AHRI Standard ¹ 210/240 or ² 340/360; 35°C (95°F) outdoor air temperature and 27°C (80°F) dry bulb/19°C (67°F) wet bulb entering evaporator air; minimum external duct static pressure while operating at rated voltage and air volumes.

³ Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor output required. Maximum usable output of motors furnished are shown. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

SPECIFICATIONS - GAS HEAT

Model No.	036, 048, 060	072, 074	036, 048, 060	072, 074	036, 048, 060	072, 074	036, 048, 060	072, 074	048, 060	072, 074	048, 060	072, 074
Heat Input Type	Standard (1 Stage)		Standard (2 Stage)		Medium (1 Stage)		Medium (2 Stage)		High (1 Stage)		High (2 Stage)	
Input kW (Btuh)	1st Stage	16.7 (57 000)	13.8 (47 000)		27.8 (95 000)		20.8 (71 000)		38.7 (132 000)		29.0 (99 000)	
	2nd Stage	---	18.1 (62 000)		---		27.8 (95 000)		---		38.7 (132 000)	
Output kW (Btuh)	1st Stage	13.5 (46 000)	11.1 (38 000)		22.3 (76 000)		16.7 (57 000)		31.1 (106 000)		23.2 (79 000)	
	2nd Stage	---	14.6 (50 000)		---		22.3 (76 000)		---		31.1 (106 000)	
Temperature Rise Range °C (°F)	1st Stage	6-22 (10-40)	3-19 (5-35)	3-19 (5-35)	14-36 (25-65)	6-22 (10-40)	11-28 (20-50)	3-19 (5-35)	22-39 (40-70)	11-28 (20-50)	14-31 (25-55)	6-22 (10-40)
	2nd Stage	---	---	6-22 (10-40)	6-22 (10-40)	---	---	14-36 (25-65)	6-22 (10-40)	---	---	22-39 (40-70)
¹ Thermal Efficiency	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Gas Supply Connections	1/2 in. NPT											
Recommended Gas Supply Pressure - Natural/ LPG	1.7 kPa (7.0 in. w.c.) / 2.7 kPa (11.0 in. w.c.)											

¹ Thermal Efficiency at full input.

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 610 m (2000 ft) above sea level without any modifications. At altitudes above 610 m (2000 ft.), units must be derated to match information in the table shown. At altitudes above 1372 m (4500 ft.), unit must be derated 2% for each 305 m (1000 ft.) above sea level.

NOTE - This is the only permissible derate for these units.

Heat Input Type	Altitude Feet		Gas Manifold Pressure				Input Rate	
			kPa		in. w.g.			
	Meters	Feet	Natural Gas	LPG/ Propane	Natural Gas	LPG/ Propane	kW	Btuh
Standard (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	15.5	53 000
Medium (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	25.8	88 000
Medium (2 stage)	610 - 1372	2001 - 4500	0.58 / 0.33	1.73 / 0.98	2.3 / 1.3	6.9 / 3.9	25.8 / 19.3	88 000 / 66 000
High (1 stage)	610 - 1372	2001 - 4500	0.58	1.73	2.3	6.9	35.8	122 000
High (2 stage)	610 - 1372	2001 - 4500	0.58 / 0.33	1.73 / 0.98	2.3 / 1.3	6.9 / 3.9	35.8 / 27.0	122 000 / 92 000

SEQUENCE OF OPERATION

Objective: Outline the unit functions as a result of room thermostat or zone sensor demands.

Given: When economizer is present, it will function as initial part of the unit cooling system. When not present, unit will function as if outdoor ambient is high and sensed as not suitable.

BELT DRIVE SYSTEM OPERATION (036 THROUGH 060 AND 074 MODELS):

Modulating Outdoor Air Damper:

Damper minimum positions #1 and 2 are adjusted during unit setup to provide minimum fresh air requirements at the indicated supply fan speeds per American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) 62.1.

- Supply fan is off and the outdoor air damper is closed
- Supply fan is on low speed and the outdoor air damper is at minimum position 1
- Supply fan is on high speed and the outdoor air damper is at minimum position 2

¹ Unit Features an Economizer and Outdoor Air is Suitable

Cooling - Thermostat or Zone Sensor Mode (Up to 3 stages Y1, Y2, Y3)

Y1 demand:

- 1st: Compressor is off, supply fan is on low speed, economizer modulates (minimum to maximum open position) to maintain 13°C supply air temperature (default unit controller setting)
- 2nd: After 5 minutes (default unit controller setting), supply fan switches to high speed. Economizer continues modulating with supply fan on high speed to maintain 13°C supply air temperature

Y2 demand:

- 1st: Compressor is off, supply fan is on high speed, and economizer modulates to maintain 13°C supply air temperature
- 2nd: Economizer opens to maximum. If economizer stays at maximum open for 3 minutes (default unit controller setting) compressor is energized and operates at first stage while supply fan stays on high speed

¹ Outdoor air suitability is determined by the energy state of outdoor ambient (enthalpy or sensible) and its ability to achieve the desired free cooling effects. Outdoor air suitability can also be determined by a third party controller and provided to the rooftop unit (RTU) via a network connection.

Y3 demand:

- 1st: Economizer is at maximum open and compressor operates at first stage. If economizer stays at maximum open for 3 minutes (default unit controller setting) compressor switches to second stage operation while supply fan stays on high speed

Unit Does not Feature an Economizer (or Outdoor Air Is Not Suitable)

Cooling - Thermostat or Zone Sensor (Up to 2 stages Y1, Y2)

Y1 demand:

- 1st: Compressor operates at first stage and supply fan operates at low speed

Y2 demand:

- 1st: Compressor operates at second stage and supply fan operates at high speed

(Continued on Next Page)

SEQUENCE OF OPERATION

BELT DRIVE SYSTEM OPERATION (036 THROUGH 060 AND 074 MODELS) (Continued):

Dehumidification Mode (economizer free cooling is locked out):

Unit features the *Humiditrol*® dehumidification system

No Y1, Y2 demand but a call for dehumidification:

1st: Compressor operates at second stage, supply fan operates at low speed, and the reheat valve is energized

Y1 demand:

1st: Compressor operates at second stage, outdoor fan operates at high speed, supply fan operates at low speed and the reheat valve is de-energized

Y2 demand:

1st: Compressor operates at second stage, supply fan operates at high speed, and the reheat valve is de-energized

Heating mode: Thermostat or Zone Sensor (Up to 2 stages W1, W2)

W1 demand:

1st: Gas valve is open (stage 1 on units with 2 stage gas valve) and the supply fan operates at high speed

W2 demand:

1st: Gas valve is open (stage 2 on units with 2 stage gas valve) and the supply fan operates at high speed

SEQUENCE OF OPERATION

SINGLE STAGE UNIT OPERATION (072)

Modulating Outdoor Air Damper:

Damper minimum positions are adjusted during unit setup to provide minimum fresh air requirements at the indicated supply fan speeds per American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) 62.1.

- 1) Supply fan is off and the outdoor air damper is closed
- 2) Supply fan is on and the outdoor air damper is at minimum position

¹ Unit Features an Economizer and Outdoor Air is Suitable

Cooling - Thermostat or Zone Sensor (Up to 2 stages Y1, Y2).

Y1 demand:

- 1st: Compressor is off, supply fan is on, economizer modulates (minimum to maximum open position) to maintain 13°C supply air temperature (default unit controller setting)

Y2 demand:

- 1st: Economizer goes to maximum open position and if the damper stays open for three minutes (default unit controller setting) the compressor is energized.

Unit Does Not Feature an Economizer (or outdoor air is not suitable)

Cooling - Thermostat or Zone Sensor (Up to 1 stage Y1).

Y1 demand:

- 1st: Compressor is operating and supply fan is on.

Dehumidification Mode (economizer free cooling is locked out):

Unit features the *Humiditrol*® dehumidification system

No Y1 demand but a call for dehumidification:

- 1st: Compressor is operating, supply fan is on, and the reheat valve is energized.

Y1 demand:

- 1st: Compressor is operating, supply fan is on, and the reheat valve is de-energized.

Y2 demand:

- 1st: Compressor is operating, supply fan is on, and the reheat valve is de-energized.

Heating Mode Thermostat or Zone Sensor (Up to 2 stages W1, W2)

W1 demand:

- 1st: Gas valve is open (stage 1 on units with 2 stage gas valve), supply fan is on.

W2 demand:

- 1st: Gas valve is open (stage 2 on units with 2 stage gas valve), supply fan is on.

RATINGS

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

10.6 kW - LGH036S4 (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		18°C						24°C						29°C						35°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
																						Dry Bulb			Dry Bulb
				L/s	kW	kW			24°C	27°C	29°C			kW	kW	24°C			27°C	29°C	kW	kW	24°C	27°C	29°C
17°C	300	7.0	0.89	.70	.84	1.00	6.7	1.03	.71	.86	1.00	6.4	1.19	.73	.89	1.00	6.2	1.37	.74	.92	1.00				
	380	7.4	0.88	.75	.93	1.00	7.1	1.02	.76	.96	1.00	6.8	1.18	.78	.98	1.00	6.4	1.36	.80	1.00	1.00				
	455	7.7	0.87	.80	1.00	1.00	7.4	1.01	.83	1.00	1.00	7.1	1.17	.85	1.00	1.00	6.8	1.35	.88	1.00	1.00				
19°C	300	7.4	0.88	.55	.68	.80	7.1	1.02	.56	.69	.82	6.8	1.18	.57	.70	.84	6.5	1.36	.58	.72	.87				
	380	7.8	0.87	.59	.73	.89	7.5	1.01	.59	.74	.92	7.2	1.17	.60	.76	.94	6.8	1.35	.62	.78	.98				
	455	8.1	0.86	.61	.78	.98	7.7	1.00	.62	.80	1.00	7.4	1.16	.63	.82	1.00	7.0	1.34	.66	.85	1.00				
22°C	300	7.8	0.87	.42	.53	.65	7.5	1.01	.42	.54	.66	7.2	1.17	.42	.55	.68	6.9	1.35	.43	.56	.69				
	380	8.2	0.85	.43	.57	.70	7.9	0.99	.43	.58	.72	7.6	1.15	.44	.59	.74	7.2	1.33	.44	.60	.75				
	455	8.5	0.84	.44	.60	.75	8.2	0.98	.45	.62	.77	7.8	1.14	.45	.63	.80	7.4	1.32	.46	.64	.83				

10.6 kW - LGH036S4 (2ND STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						51.7°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C	24°C	27°C	29°C	
17°C	455	9.3	1.85	.73	.88	1.00	8.7	2.20	.76	.92	1.00	8.0	2.62	.79	.97	1.00	7.2	3.16	.83	1.00	1.00				
	565	9.8	1.87	.79	.98	1.00	9.1	2.22	.82	1.00	1.00	8.4	2.65	.86	1.00	1.00	7.6	3.19	.93	1.00	1.00				
	680	10.1	1.89	.85	1.00	1.00	9.5	2.24	.89	1.00	1.00	8.8	2.67	.95	1.00	1.00	8.0	3.21	1.00	1.00	1.00				
19°C	455	9.8	1.88	.58	.71	.85	9.1	2.22	.59	.74	.89	8.4	2.65	.61	.76	.93	7.5	3.19	.63	.81	1.00				
	565	10.2	1.89	.61	.77	.94	9.5	2.24	.63	.80	.98	8.7	2.67	.65	.84	1.00	7.8	3.21	.69	.90	1.00				
	680	10.5	1.91	.64	.83	1.00	9.8	2.25	.66	.87	1.00	8.9	2.68	.70	.93	1.00	8.0	3.22	.73	.99	1.00				
22°C	455	10.3	1.90	.44	.56	.69	9.6	2.25	.44	.58	.71	8.8	2.68	.44	.60	.74	7.9	3.21	.46	.62	.78				
	565	10.8	1.92	.45	.60	.75	10.0	2.26	.46	.62	.78	9.2	2.69	.47	.65	.82	8.2	3.23	.48	.68	.88				
	680	11.0	1.93	.46	.63	.81	10.3	2.28	.47	.66	.85	9.3	2.70	.49	.69	.90	8.4	3.24	.51	.73	.97				

14 kW - LGH048S4 (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		18°C						24°C						29°C						35°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C				
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kBtuh	kW	24°C	27°C	29°C					
17°C	400	10.0	1.30	.68	.81	.98	9.6	1.50	.69	.84	1.00	9.2	1.73	.70	.86	1.00	8.8	1.99	.72	.89	1.00				
	505	10.5	1.29	.72	.91	1.00	10.1	1.49	.74	.94	1.00	9.7	1.72	.76	.97	1.00	9.2	1.98	.77	1.00	1.00				
	605	10.9	1.28	.79	1.00	1.00	10.6	1.48	.80	1.00	1.00	10.2	1.70	.83	1.00	1.00	9.7	1.96	.86	1.00	1.00				
19°C	400	10.6	1.28	.53	.65	.77	10.2	1.49	.55	.67	.79	9.8	1.72	.56	.68	.82	9.3	1.98	.56	.69	.85				
	505	11.1	1.27	.57	.70	.87	10.7	1.47	.57	.71	.89	10.2	1.70	.58	.73	.92	9.7	1.96	.59	.75	.95				
	605	11.5	1.26	.60	.75	.97	11.0	1.46	.61	.78	.99	10.6	1.69	.62	.79	1.00	10.0	1.95	.63	.83	1.00				
22°C	400	11.3	1.27	.41	.53	.63	10.8	1.47	.42	.53	.65	10.4	1.70	.42	.54	.66	9.9	1.96	.42	.55	.67				
	505	11.8	1.25	.42	.55	.68	11.3	1.45	.42	.55	.69	10.8	1.68	.40	.56	.71	10.3	1.94	.45	.58	.73				
	605	12.2	1.24	.46	.59	.74	11.7	1.44	.42	.59	.74	11.2	1.67	.42	.61	.77	10.6	1.93	.44	.63	.88				

14 kW - LGH048S4 (2ND STAGE)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						51.7°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C				
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kBtuh	kW	24°C	27°C	29°C					
17°C	605	13.0	2.39	.73	.88	1.00	12.1	2.79	.75	.93	1.00	11.0	3.29	.77	.98	1.00	10.0	3.94	.83	1.00	1.00				
	755	13.6	2.41	.78	.98	1.00	12.7	2.82	.82	1.00	1.00	11.7	3.33	.87	1.00	1.00	10.6	3.97	.94	1.00	1.00				
	905	14.2	2.44	.85	1.00	1.00	13.3	2.84	.89	1.00	1.00	12.3	3.35	.96	1.00	1.00	11.0	4.00	1.00	1.00	1.00				
19°C	605	13.8	2.42	.57	.70	.84	12.8	2.82	.58	.72	.89	11.7	3.32	.60	.76	.94	10.4	3.96	.63	.80	1.00				
	755	14.3	2.44	.59	.76	.94	13.2	2.84	.61	.79	.99	12.1	3.35	.64	.84	1.00	10.8	3.98	.68	.92	1.00				
	905	14.7	2.46	.63	.83	1.00	13.6	2.86	.66	.88	1.00	12.4	3.36	.69	.94	1.00	11.0	3.99	.74	1.00	1.00				
22°C	605	14.5	2.45	.43	.56	.68	13.5	2.85	.43	.57	.70	12.3	3.36	.43	.58	.73	10.9	3.99	.44	.61	.78				
	755	15.1	2.47	.44	.59	.74	14.0	2.87	.46	.62	.77	12.7	3.38	.45	.63	.82	11.3	4.01	.48	.67	.89				
	905	15.5	2.48	.44	.63	.81	14.3	2.89	.46	.65	.85	13.0	3.39	.49	.69	.91	11.6	4.03	.52	.73	.89				

RATINGS

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

17.6 kW - LGH060S4 (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil														
		18°C					24°C					29°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C
17°C	505	12.9	1.54	.68	.81	.96	12.3	1.82	.69	.84	.99	11.8	2.12	.71	.86	1.00
	630	13.5	1.53	.73	.90	1.00	13.0	1.81	.74	.92	1.00	12.4	2.11	.76	.95	1.00
	755	14.1	1.52	.78	.98	1.00	13.5	1.81	.80	1.00	1.00	13.0	2.11	.82	1.00	1.00
19°C	505	13.7	1.53	.53	.66	.77	13.1	1.81	.55	.67	.79	12.6	2.11	.56	.68	.82
	630	14.4	1.52	.57	.71	.86	13.8	1.80	.58	.72	.88	13.2	2.11	.59	.73	.90
	755	14.9	1.51	.59	.75	.94	14.3	1.80	.60	.77	.97	13.7	2.11	.61	.79	.99
22°C	505	14.6	1.51	.41	.52	.63	14.0	1.80	.41	.53	.64	13.4	2.11	.43	.54	.65
	630	15.3	1.51	.43	.55	.68	14.7	1.80	.43	.56	.69	14.0	2.10	.43	.57	.70
	755	15.9	1.50	.41	.59	.73	15.2	1.79	.45	.59	.74	14.5	2.10	.44	.60	.76

17.6 kW - LGH060S4 (2ND STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil														
		26.7°C					35°C					43.3°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C
17°C	755	16.2	2.86	.72	.87	1.00	15.2	3.40	.74	.91	1.00	14.0	4.07	.78	.95	1.00
	945	17.0	2.89	.77	.96	1.00	15.9	3.43	.80	1.00	1.00	14.8	4.11	.84	1.00	1.00
	1135	17.8	2.93	.83	1.00	1.00	16.7	3.47	.87	1.00	1.00	15.5	4.13	.93	1.00	1.00
19°C	755	17.2	2.90	.57	.69	.83	16.1	3.44	.58	.72	.87	14.8	4.10	.59	.74	.91
	945	18.0	2.94	.60	.75	.92	16.8	3.47	.62	.78	.97	15.4	4.13	.63	.81	1.00
	1135	18.5	2.96	.63	.81	1.00	17.3	3.49	.65	.85	1.00	15.9	4.16	.68	.90	1.00
22°C	755	18.2	2.95	.43	.55	.67	17.0	3.48	.43	.57	.69	15.7	4.15	.44	.58	.72
	945	19.0	2.98	.44	.59	.73	17.7	3.51	.45	.60	.75	16.3	4.17	.45	.62	.79
	1135	19.5	3.00	.46	.62	.78	18.2	3.53	.46	.64	.82	16.8	4.20	.48	.67	.87

21 kW - LGH072H4 (FULL LOAD)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil														
		26.7°C					35°C					43.3°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
	L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C
17°C	905	19.8	3.79	.73	.88	1.00	18.5	4.44	.75	.92	1.00	17.1	5.23	.78	.96	1.00
	1135	20.7	3.80	.79	.97	1.00	19.4	4.45	.81	1.00	1.00	18.1	5.24	.85	1.00	1.00
	1360	21.7	3.81	.85	1.00	1.00	20.5	4.46	.88	1.00	1.00	19.0	5.24	.93	1.00	1.00
19°C	905	20.9	3.80	.58	.69	.84	19.7	4.45	.59	.73	.88	18.1	5.24	.61	.76	.92
	1360	22.0	3.82	.61	.76	.93	20.5	4.46	.62	.79	.97	18.9	5.24	.64	.83	1.00
	1360	22.7	3.82	.64	.82	1.00	21.1	4.46	.66	.85	1.00	19.5	5.26	.69	.91	1.00
22°C	905	22.2	3.82	.44	.56	.68	20.9	4.47	.44	.58	.70	19.3	5.25	.45	.59	.73
	1135	23.2	3.83	.45	.60	.74	21.7	4.48	.45	.61	.76	20.1	5.26	.46	.63	.80
	1360	23.9	3.84	.45	.63	.79	22.4	4.48	.47	.65	.83	20.7	5.28	.48	.67	.87

RATINGS

NOTE - For Temperatures and Capacities not shown in tables, see bulletin - Cooling Unit Rating Table Correction Factor Data in Miscellaneous Engineering Data section.

17.6 kW - LGH074H4 (1ST STAGE)

Entering Wet Bulb Temp- erature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		18°C						24°C						29°C						35°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				L/s	kW	kW			24°C	27°C	29°C			kW	kW	24°C			27°C	29°C	kW	kW	24°C	27°C	29°C
17°C	565	13.7	1.85	0.74	0.88	0.97	13.1	2.13	0.75	0.90	0.99	12.5	2.40	0.76	0.92	1.00	11.7	2.77	0.78	0.95	1.00				
	755	14.8	1.84	0.81	0.98	1.00	14.1	2.12	0.82	1.00	1.00	13.5	2.39	0.84	1.00	1.00	12.8	2.76	0.86	1.00	1.00				
	945	16.0	1.82	0.88	1.00	1.00	15.3	2.11	0.90	1.00	1.00	14.6	2.38	0.92	1.00	1.00	13.7	2.75	0.95	1.00	1.00				
19°C	565	14.7	1.84	0.59	0.74	0.82	14.0	2.13	0.60	0.75	0.84	13.3	2.40	0.61	0.76	0.86	12.5	2.77	0.62	0.78	0.88				
	755	15.8	1.83	0.65	0.82	0.92	15.0	2.11	0.66	0.82	0.94	14.3	2.39	0.64	0.84	0.96	13.3	2.76	0.67	0.87	0.99				
	945	16.5	1.82	0.69	0.89	1.00	15.7	2.10	0.71	0.91	1.00	15.0	2.38	0.71	0.93	1.00	14.0	2.75	0.73	0.96	1.00				
22°C	565	16.1	1.82	0.41	0.53	0.62	15.3	2.11	0.42	0.54	0.63	14.6	2.38	0.41	0.55	0.64	13.7	2.75	0.41	0.58	0.65				
	755	17.2	1.81	0.43	0.59	0.69	16.4	2.09	0.43	0.60	0.70	15.6	2.37	0.42	0.60	0.71	14.7	2.74	0.43	0.61	0.73				
	945	18.1	1.79	0.45	0.63	0.74	17.2	2.08	0.45	0.64	0.75	16.4	2.36	0.45	0.64	0.78	15.4	2.73	0.46	0.67	0.80				

17.6 kW - LGH074H4 (2ND STAGE)

Entering Wet Bulb Temp- erature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		26.7°C						35°C						43.3°C						51.7°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				24°C	27°C	29°C			kW	kW	24°C			27°C	29°C	kW			kW	24°C	27°C	29°C	kBtu/h	kW	24°C
L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kBtu/h	kW	24°C	27°C	29°C					
17°C	905	18.0	3.22	0.80	0.97	1.00	18.5	3.85	0.82	1.00	1.00	15.1	4.63	0.86	1.00	1.00	13.6	5.57	0.91	1.00	1.00				
	1135	19.1	3.25	0.87	1.00	1.00	17.8	3.90	0.90	1.00	1.00	16.2	4.66	0.95	1.00	1.00	14.5	5.60	1.00	1.00	1.00				
	1360	20.2	3.28	0.94	1.00	1.00	18.6	3.92	0.98	1.00	1.00	17.1	4.70	1.00	1.00	1.00	15.2	5.62	1.00	1.00	1.00				
19°C	905	19.0	3.25	0.64	0.81	0.91	17.5	3.88	0.65	0.83	0.95	15.8	4.65	0.67	0.86	0.99	13.9	5.57	0.69	0.92	1.00				
	1135	19.9	3.27	0.69	0.88	0.99	18.2	3.91	0.70	0.91	1.00	16.5	4.68	0.73	0.97	1.00	14.6	5.60	0.77	1.00	1.00				
	1360	20.5	3.29	0.73	0.95	1.00	18.8	3.93	0.76	0.99	1.00	17.1	4.69	0.79	1.00	1.00	15.3	5.63	0.83	1.00	1.00				
22°C	905	20.6	3.30	0.43	0.59	0.68	18.9	3.93	0.43	0.60	0.70	17.1	4.70	0.42	0.61	0.72	15.2	5.62	0.42	0.63	0.76				
	1135	21.5	3.32	0.44	0.62	0.74	19.7	3.96	0.45	0.64	0.77	17.8	4.72	0.45	0.66	0.80	15.8	5.65	0.46	0.70	0.86				
	1360	22.1	3.35	0.46	0.66	0.80	20.3	3.99	0.47	0.69	0.84	18.3	4.75	0.47	0.72	0.88	16.1	5.66	0.48	0.76	0.94				

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil														
		46°C					48°C					50°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb		
				24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C
17°C	905	14.7	4.91	0.87	1.00	1.00	14.3	5.14	0.88	1.00	1.00	14.0	5.37	0.89	1.00	1.00
	1135	15.7	4.94	0.97	1.00	1.00	15.3	5.16	0.98	1.00	1.00	14.9	5.40	0.99	1.00	1.00
	1360	16.6	4.98	1.00	1.00	1.00	16.1	5.20	1.00	1.00	1.00	15.7	5.43	1.00	1.00	1.00
19°C	905	15.2	4.93	0.68	0.88	1.00	14.8	5.15	0.68	0.90	1.00	14.3	5.37	0.69	0.91	1.00
	1135	15.9	4.95	0.75	0.98	1.00	15.4	5.17	0.75	0.99	1.00	14.9	5.40	0.76	1.00	1.00
	1360	16.5	4.97	0.81	1.00	1.00	16.0	5.19	0.82	1.00	1.00	15.6	5.42	0.82	1.00	1.00
22°C	905	16.6	4.98	0.43	0.62	0.74	16.1	5.19	0.43	0.63	0.75	15.6	5.42	0.43	0.63	0.76
	1135	17.2	5.00	0.44	0.68	0.82	16.7	5.22	0.45	0.68	0.83	16.2	5.45	0.45	0.69	0.84
	1360	17.7	5.02	0.47	0.73	0.90	17.2	5.24	0.48	0.74	0.91	16.7	5.47	0.48	0.75	0.93

HUMIDITROL® DEHUMIDIFICATION SYSTEM RATINGS**10.6 kW - LGH036S4 with HUMIDITROL OPERATING**

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		18°C					24°C					29°C					35°C				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				L/s	kW	kW			24°C	27°C	29°C			kW	kW	24°C			27°C	29°C	kW
17°C	300	5.9	1.50	.47	.63	.80	5.0	1.67	.41	.60	.80	4.1	1.87	.33	.56	.80	3.1	2.09	.19	.50	.82
	380	6.2	1.52	.51	.71	.91	5.2	1.69	.46	.69	.93	4.0	1.89	.36	.67	.97	2.9	2.11	.22	.63	1.00
	455	6.4	1.54	.52	.79	1.00	5.2	1.71	.51	.79	1.00	4.0	1.90	.42	.79	1.00	2.7	2.12	.26	.80	.99
19°C	300	6.7	1.52	.32	.46	.60	5.7	1.69	.25	.41	.57	4.8	1.89	.16	.34	.54	3.8	2.11	.01	.24	.49
	455	7.0	1.54	.33	.50	.68	5.9	1.72	.26	.46	.66	4.8	1.91	.16	.39	.64	3.8	2.13	-.01	.25	.60
	455	7.2	1.56	.36	.55	.75	6.0	1.73	.28	.51	.71	4.8	1.93	.16	.44	.74	3.5	2.15	-.04	.34	.75
22°C	300	7.4	1.54	.20	.32	.45	6.4	1.71	.13	.27	.41	5.5	1.91	.03	.19	.35	4.5	2.13	-.12	.08	.27
	380	7.8	1.56	.20	.35	.49	6.7	1.74	.12	.29	.45	5.6	1.93	.01	.20	.40	4.4	2.15	-.17	.08	.31
	455	8.1	1.58	.21	.37	.54	6.8	1.75	.11	.31	.51	5.5	1.95	-.01	.22	.46	4.2	2.17	-.23	.08	.38

14 kW - LGH048S4 with HUMIDITROL OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		18°C						24°C						29°C						35°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)				Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)				Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)				Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			
				Dry Bulb						Dry Bulb						Dry Bulb						Dry Bulb			
				L/s	kW	kW	24°C			27°C	29°C	kW	kW			24°C	27°C	29°C	kW			kW	24°C	27°C	29°C
17°C	420	8.1	1.99	.48	.65	.81	6.9	2.20	.44	.63	.81	5.8	2.44	.37	.59	.82	4.5	2.70	.27	.55	.83				
	525	8.5	2.02	.54	.72	.92	7.2	2.23	.48	.72	.94	5.8	2.47	.42	.69	.98	4.4	2.73	.30	.67	1.00				
	630	8.7	2.05	.58	.81	.98	7.3	2.26	.53	.81	1.00	5.7	2.49	.47	.82	1.00	4.1	2.75	.37	.84	1.00				
19°C	420	9.1	2.03	.33	.47	.62	7.9	2.24	.27	.43	.60	6.7	2.47	.19	.38	.57	5.5	2.73	.06	.29	.52				
	630	9.5	2.05	.36	.52	.69	8.2	2.26	.27	.48	.68	6.8	2.50	.19	.42	.62	5.4	2.76	.05	.34	.64				
	630	9.8	2.08	.38	.57	.77	8.3	2.28	.30	.54	.76	6.8	2.52	.20	.48	.77	5.2	2.78	.04	.41	.78				
22°C	420	10.1	2.05	.20	.33	.46	8.9	2.26	.14	.29	.42	7.7	2.50	.05	.22	.37	6.4	2.76	-.08	.12	.32				
	525	10.6	2.08	.21	.35	.51	9.2	2.29	.14	.31	.48	7.8	2.52	.03	.23	.43	6.4	2.79	-.13	.12	.36				
	630	10.8	2.10	.22	.39	.56	9.4	2.31	.13	.33	.53	7.8	2.54	.01	.25	.49	6.2	2.81	-.17	.13	.42				

17.6 kW - LGH060S4 with HUMIDITROL OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		18°C						24°C						29°C						35°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C			24°C	27°C	29°C	24°C	27°C	29°C	
17°C	510	10.4	2.60	.44	.60	.78	8.6	2.89	.36	.56	.77	6.8	3.22	.24	.49	.76	4.9	3.60	.03	.37	.74				
	635	10.9	2.65	.47	.68	.89	8.8	2.93	.40	.66	.91	7.0	3.26	.28	.54	.94	4.5	3.64	.03	.50	.99				
	765	11.2	2.68	.52	.77	1.00	8.9	2.96	.44	.75	1.00	6.5	3.29	.31	.72	1.00	4.1	3.66	.04	.69	1.00				
19°C	510	11.9	2.65	.28	.43	.57	10.1	2.93	.19	.36	.54	8.2	3.26	-.12	.27	.48	6.2	3.64	-.13	.13	.40				
	765	12.5	2.69	.30	.47	.65	10.4	2.97	.21	.41	.62	8.2	3.30	.07	.32	.58	6.0	3.68	-.18	.15	.51				
	765	12.8	2.73	.33	.52	.72	10.5	3.01	.21	.46	.71	8.1	3.33	.06	.36	.68	5.7	3.71	-.24	.19	.64				
22°C	510	13.4	2.69	.16	.29	.42	11.5	2.97	.08	.22	.37	9.6	3.30	-.05	.13	.30	7.6	3.68	-.24	-.02	.19				
	635	14.0	2.74	.17	.32	.47	12.0	3.02	.07	.24	.42	9.7	3.34	-.07	.14	.34	7.7	3.72	-.32	-.06	.20				
	765	14.7	2.77	.16	.32	.51	12.0	3.05	.05	.27	.46	9.7	3.38	-.12	.14	.39	7.2	3.76	-.41	-.06	.27				

21 kW - LGH072H4 with HUMIDITROL OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		18°C						24°C						29°C						35°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
				L/s	kW	kW			24°C	27°C	29°C			kW	kW	24°C			27°C	29°C	kW	kW	24°C	27°C	29°C
17°C	905	12.7	3.18	.54	.78	1.00	10.3	3.51	.47	.77	.98	7.9	3.87	.36	.75	1.00	5.4	4.26	.17	.74	1.00				
	1135	12.9	3.20	.62	.92	1.00	10.3	3.52	.57	.93	1.00	7.4	3.88	.46	1.00	.99	4.7	4.27	.23	1.00	1.00				
	1360	13.1	3.21	.69	1.00	.99	10.3	3.54	.65	1.00	1.00	7.4	3.89	.57	1.00	.87	4.5	4.29	.37	.98	1.00				
19°C	905	14.4	3.21	.32	.53	.74	12.1	3.53	.23	.48	.73	9.6	3.88	.09	.40	.71	7.1	4.28	-.18	.26	.69				
	1360	14.7	3.23	.35	.60	.86	12.0	3.54	.26	.56	.89	9.3	3.90	.09	.49	.85	6.3	4.29	-.25	.36	.96				
	1360	14.8	3.24	.39	.69	.99	11.9	3.55	.27	.64	.99	8.8	3.90	.08	.59	.99	5.6	4.30	-.34	.49	1.00				
22°C	905	16.3	3.23	.15	.33	.52	13.8	3.55	.04	.26	.48	11.3	3.90	-.12	.15	.41	8.7	4.30	-.39	-.02	.32				
	1135	16.5	3.25	.15	.37	.59	13.8	3.56	.03	.29	.56	11.0	3.92	-.17	.18	.51	8.1	4.31	-.53	-.03	.41				
	1360	16.7	3.26	.16	.42	.67	13.7	3.58	.02	.33	.64	10.6	3.92	-.21	.20	.60	7.4	4.31	-.70	-.05	.52				

HUMIDITROL® DEHUMIDIFICATION SYSTEM RATINGS

21 kW - LGH074H4 with HUMIDITROL OPERATING

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		18.1°C						24°C						29°C						35°C					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
	L/s	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C	kW	kW	24°C	27°C	29°C				
17.2°C	565	10.6	2.62	0.48	0.68	0.80	8.1	2.99	0.37	0.62	0.78	6.0	3.32	0.20	0.54	0.76	3.4	3.78	-0.32	0.30	0.69				
	755	11.3	2.66	0.56	0.80	0.95	8.7	3.02	0.46	0.73	0.98	6.3	3.36	0.28	0.67	1.00	2.9	3.81	-0.35	0.61	1.00				
	945	11.6	2.69	0.64	0.92	1.00	8.4	3.05	0.55	0.93	0.99	5.7	3.39	0.39	0.96	1.00	2.4	3.83	-0.36	1.00	1.00				
19.4°C	565	12.2	2.65	0.35	0.52	0.63	9.7	3.01	0.22	0.43	0.57	7.6	3.35	0.04	0.31	0.49	4.9	3.80	-0.40	0.04	0.32				
	755	13.0	2.69	0.39	0.59	0.73	10.1	3.06	0.26	0.52	0.70	7.6	3.39	0.05	0.41	0.65	4.5	3.84	-0.50	0.13	0.52				
	945	13.5	2.73	0.43	0.68	0.83	10.2	3.09	0.29	0.62	0.83	7.4	3.42	0.07	0.53	0.82	3.9	3.87	-0.63	0.27	0.83				
21.7°C	565	14.7	2.70	0.20	0.33	0.43	12.1	3.06	0.06	0.23	0.35	9.9	3.40	-0.10	0.11	0.24	7.2	3.85	-0.45	-0.15	0.03				
	755	15.7	2.75	0.20	0.37	0.48	12.7	3.11	0.05	0.26	0.41	10.1	3.45	-0.15	0.13	0.31	7.0	3.90	-0.60	-0.18	0.08				
	945	16.2	2.79	0.20	0.40	0.54	12.9	3.15	0.03	0.29	0.47	10.0	3.48	-0.20	0.15	0.37	6.5	3.92	-0.76	-0.21	0.13				

BLOWER DATA - BELT DRIVE - LGHO36

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP									
330	700	453	0.05	0.07	523	0.08	0.11	596	0.10	0.14	679	0.13	0.17	762	0.13	0.18	828	0.16	0.21	878	0.18	0.24	927	0.19	0.26	979	0.22	0.29	1029	0.23	0.31
380	800	471	0.07	0.09	542	0.10	0.13	614	0.12	0.16	696	0.14	0.19	777	0.16	0.21	841	0.17	0.23	889	0.19	0.26	938	0.22	0.29	990	0.23	0.31	1042	0.25	0.34
425	900	493	0.08	0.11	563	0.11	0.15	634	0.14	0.19	715	0.16	0.21	793	0.17	0.23	854	0.19	0.26	902	0.22	0.29	950	0.24	0.32	1002	0.25	0.34	1054	0.27	0.36
470	1000	517	0.10	0.14	587	0.13	0.18	657	0.16	0.21	736	0.18	0.24	811	0.19	0.26	869	0.22	0.29	916	0.24	0.32	964	0.26	0.35	1015	0.28	0.37	1067	0.30	0.40
520	1100	544	0.13	0.17	613	0.16	0.21	683	0.18	0.24	759	0.20	0.27	831	0.22	0.30	886	0.24	0.32	931	0.27	0.36	978	0.28	0.38	1028	0.31	0.41	1078	0.32	0.43
565	1200	574	0.15	0.20	643	0.18	0.24	711	0.20	0.27	784	0.22	0.30	852	0.25	0.33	904	0.27	0.36	947	0.29	0.39	993	0.31	0.42	1042	0.34	0.45	1091	0.35	0.47
615	1300	608	0.18	0.24	676	0.21	0.28	743	0.23	0.31	812	0.25	0.34	875	0.28	0.37	923	0.30	0.40	964	0.33	0.44	1010	0.34	0.46	1057	0.37	0.49	1104	0.38	0.51
660	1400	645	0.21	0.28	711	0.23	0.31	776	0.26	0.35	842	0.28	0.38	898	0.31	0.41	942	0.33	0.44	983	0.36	0.48	1028	0.38	0.51	1074	0.40	0.53	1120	0.42	0.56

Air Volume		External Static - Pa (in.w.g.)																			
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)	
L/s cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
330 700	1078	0.25	0.33	1124	0.27	0.36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
380 800	1091	0.27	0.36	1137	0.29	0.39	1180	0.31	0.41	1221	0.33	0.44	1260	0.35	0.47	---	---	---	---	---	---
425 900	1105	0.29	0.39	1150	0.31	0.42	1192	0.34	0.45	1232	0.35	0.47	1270	0.37	0.50	1307	0.40	0.53	1345	0.42	0.56
470 1000	1117	0.31	0.42	1162	0.34	0.45	1203	0.36	0.48	1242	0.38	0.51	1279	0.40	0.54	1316	0.43	0.57	1353	0.45	0.60
520 1100	1126	0.34	0.46	1171	0.37	0.49	1212	0.39	0.52	1251	0.42	0.56	1288	0.44	0.59	1325	0.46	0.62	1361	0.48	0.65
565 1200	1137	0.37	0.50	1180	0.40	0.54	1222	0.43	0.57	1260	0.45	0.60	1298	0.48	0.64	1334	0.50	0.67	1369	0.52	0.70
615 1300	1149	0.41	0.55	1191	0.43	0.58	1232	0.46	0.62	1270	0.48	0.65	1307	0.51	0.69	1343	0.54	0.72	1378	0.57	0.76
660 1400	1163	0.45	0.60	1204	0.47	0.63	1243	0.50	0.67	1281	0.53	0.71	1317	0.55	0.74	1353	0.58	0.78	1388	0.61	0.82

BLOWER DATA - BELT DRIVE - LGH036

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

HORIZONTAL

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
330	700	440	0.05	0.07	510	0.07	0.10	585	0.09	0.12	657	0.10	0.14	726	0.13	0.17	793	0.15	0.20	856	0.17	0.23	915	0.19	0.25	967	0.21	0.28	1016	0.23	0.31
380	800	456	0.06	0.08	526	0.08	0.11	600	0.10	0.14	672	0.12	0.16	739	0.14	0.19	804	0.16	0.22	866	0.19	0.25	923	0.21	0.28	975	0.23	0.31	1025	0.25	0.34
425	900	474	0.07	0.10	544	0.10	0.13	617	0.12	0.16	688	0.13	0.18	754	0.16	0.21	818	0.18	0.24	877	0.20	0.27	932	0.22	0.30	984	0.25	0.33	1034	0.27	0.36
470	1000	495	0.09	0.12	565	0.11	0.15	637	0.13	0.18	707	0.16	0.21	771	0.17	0.23	832	0.20	0.27	889	0.22	0.30	943	0.25	0.33	993	0.27	0.36	1043	0.29	0.39
520	1100	518	0.10	0.14	588	0.13	0.18	659	0.16	0.21	727	0.17	0.23	789	0.19	0.26	848	0.22	0.30	903	0.25	0.33	954	0.28	0.37	1003	0.30	0.40	1052	0.32	0.43
565	1200	544	0.13	0.17	613	0.16	0.21	682	0.18	0.24	748	0.20	0.27	809	0.22	0.29	866	0.25	0.33	918	0.28	0.37	967	0.30	0.40	1014	0.32	0.43	1062	0.34	0.46
615	1300	572	0.16	0.21	640	0.18	0.24	707	0.20	0.27	771	0.22	0.30	830	0.25	0.33	884	0.28	0.37	934	0.31	0.41	981	0.33	0.44	1027	0.35	0.47	1073	0.37	0.50
660	1400	602	0.18	0.24	669	0.21	0.28	733	0.23	0.31	795	0.25	0.34	851	0.28	0.37	903	0.31	0.41	950	0.34	0.45	995	0.37	0.49	1040	0.39	0.52	1086	0.41	0.55

Air Volume		External Static - Pa (in.w.g.)																														
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)												
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	
330	700	1065	0.25	0.33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
380	800	1075	0.27	0.36	1122	0.29	0.39	1164	0.31	0.42	1203	0.34	0.45	1241	0.35	0.47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
425	900	1086	0.29	0.39	1133	0.31	0.42	1174	0.34	0.45	1213	0.36	0.48	1250	0.38	0.51	1286	0.40	0.54	1322	0.43	0.57	1357	0.45	0.60	1392	0.48	0.64	---	---	---	
470	1000	1094	0.32	0.43	1142	0.34	0.46	1183	0.37	0.49	1222	0.39	0.52	1259	0.41	0.55	1295	0.43	0.58	1330	0.46	0.62	1365	0.48	0.65	1400	0.51	0.68	1435	0.53	0.71	
520	1100	1102	0.34	0.46	1148	0.37	0.49	1191	0.40	0.53	1230	0.42	0.56	1267	0.45	0.60	1303	0.47	0.63	1338	0.49	0.66	1373	0.51	0.69	1408	0.54	0.73	1444	0.57	0.76	
565	1200	1110	0.37	0.50	1156	0.40	0.53	1198	0.43	0.57	1238	0.45	0.61	1275	0.48	0.64	1311	0.51	0.68	1346	0.53	0.71	1381	0.55	0.74	1416	0.58	0.78	1452	0.60	0.81	
615	1300	1120	0.40	0.54	1164	0.43	0.58	1207	0.46	0.62	1246	0.48	0.65	1283	0.51	0.69	1319	0.54	0.73	1354	0.57	0.76	1389	0.59	0.79	1424	0.62	0.83	1460	0.64	0.86	
660	1400	1131	0.44	0.59	1175	0.47	0.63	1216	0.50	0.67	1255	0.52	0.70	1292	0.55	0.74	1327	0.58	0.78	1362	0.60	0.81	1397	0.63	0.84	1432	0.66	0.88	1468	0.68	0.91	

BLOWER DATA - BELT DRIVE - LGH048

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
425	900	502	0.09	0.12	573	0.11	0.15	644	0.14	0.19	725	0.16	0.22	802	0.18	0.24	861	0.19	0.26	908	0.22	0.29	957	0.24	0.32	1009	0.25	0.34	1061	0.28	0.37
470	1000	528	0.10	0.14	598	0.13	0.18	668	0.16	0.22	747	0.18	0.24	821	0.20	0.27	877	0.22	0.30	923	0.25	0.33	971	0.26	0.35	1022	0.28	0.38	1074	0.30	0.40
520	1100	557	0.13	0.17	626	0.16	0.21	695	0.19	0.25	772	0.21	0.28	841	0.22	0.30	894	0.25	0.33	939	0.27	0.36	986	0.29	0.39	1037	0.31	0.41	1087	0.33	0.44
565	1200	589	0.16	0.21	657	0.19	0.25	725	0.21	0.28	798	0.23	0.31	864	0.25	0.33	913	0.28	0.37	956	0.30	0.40	1003	0.32	0.43	1052	0.34	0.45	1100	0.36	0.48
615	1300	625	0.19	0.25	692	0.21	0.28	759	0.24	0.32	827	0.25	0.34	887	0.28	0.37	933	0.31	0.41	975	0.33	0.44	1021	0.35	0.47	1068	0.37	0.49	1115	0.39	0.52
660	1400	665	0.22	0.29	730	0.24	0.32	794	0.26	0.35	857	0.28	0.38	911	0.31	0.42	953	0.34	0.45	995	0.37	0.49	1040	0.39	0.52	1086	0.40	0.54	1131	0.43	0.57
710	1500	706	0.25	0.33	768	0.27	0.36	829	0.29	0.39	886	0.32	0.43	934	0.34	0.46	974	0.37	0.50	1015	0.40	0.54	1060	0.42	0.56	1105	0.44	0.59	1149	0.46	0.62
755	1600	746	0.28	0.37	805	0.30	0.40	862	0.33	0.44	914	0.36	0.48	957	0.39	0.52	996	0.41	0.55	1037	0.44	0.59	1081	0.46	0.62	1126	0.48	0.64	1167	0.51	0.68
800	1700	784	0.31	0.42	840	0.34	0.45	893	0.37	0.49	940	0.40	0.53	980	0.43	0.57	1019	0.45	0.61	1060	0.48	0.64	1104	0.50	0.67	1147	0.52	0.70	1187	0.55	0.74
850	1800	821	0.35	0.47	874	0.38	0.51	923	0.41	0.55	967	0.44	0.59	1006	0.47	0.63	1044	0.50	0.67	1085	0.52	0.70	1128	0.54	0.73	1170	0.57	0.77	1208	0.61	0.82
895	1900	857	0.40	0.53	906	0.43	0.57	952	0.46	0.62	994	0.49	0.66	1032	0.52	0.70	1071	0.54	0.73	1112	0.57	0.76	1154	0.60	0.80	1194	0.63	0.85	1230	0.67	0.90

Air Volume		External Static - Pa (in.w.g.)																													
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
425	900	1111	0.29	0.39	1156	0.31	0.42	1197	0.34	0.45	1236	0.36	0.48	1275	0.38	0.51	1312	0.40	0.54	1349	0.42	0.56	1387	0.44	0.59	1424	0.46	0.62	---	---	---
470	1000	1124	0.32	0.43	1168	0.34	0.46	1209	0.37	0.49	1247	0.39	0.52	1285	0.41	0.55	1322	0.43	0.58	1358	0.45	0.61	1395	0.48	0.64	1432	0.50	0.67	1470	0.52	0.70
520	1100	1134	0.35	0.47	1178	0.37	0.50	1219	0.40	0.53	1258	0.42	0.56	1295	0.45	0.60	1331	0.47	0.63	1367	0.49	0.66	1403	0.51	0.69	1439	0.54	0.72	1477	0.56	0.75
565	1200	1146	0.38	0.51	1189	0.40	0.54	1230	0.43	0.58	1268	0.45	0.61	1305	0.48	0.65	1341	0.51	0.68	1376	0.53	0.71	1411	0.55	0.74	1447	0.57	0.77	1485	0.60	0.81
615	1300	1159	0.41	0.55	1201	0.44	0.59	1241	0.47	0.63	1279	0.49	0.66	1315	0.52	0.70	1351	0.54	0.73	1386	0.57	0.77	1421	0.60	0.80	1457	0.62	0.83	1495	0.65	0.87
660	1400	1173	0.45	0.61	1214	0.48	0.64	1253	0.51	0.68	1290	0.54	0.72	1327	0.56	0.75	1362	0.59	0.79	1397	0.61	0.82	1432	0.64	0.86	1468	0.66	0.89	1506	0.69	0.93
710	1500	1189	0.49	0.66	1228	0.52	0.70	1266	0.55	0.74	1303	0.58	0.78	1339	0.60	0.81	1374	0.63	0.85	1409	0.66	0.89	1445	0.69	0.92	1481	0.72	0.96	1519	0.75	1.00
755	1600	1206	0.54	0.72	1244	0.57	0.76	1281	0.60	0.80	1317	0.63	0.84	1353	0.66	0.88	1388	0.69	0.92	1423	0.72	0.96	1459	0.75	1.00	1496	0.78	1.04	1535	0.81	1.08
800	1700	1224	0.59	0.79	1261	0.62	0.83	1298	0.65	0.87	1334	0.68	0.91	1369	0.71	0.95	1404	0.74	0.99	1440	0.77	1.03	1476	0.80	1.07	1513	0.84	1.12	1552	0.87	1.16
850	1800	1244	0.64	0.86	1280	0.68	0.91	1316	0.71	0.95	1352	0.74	0.99	1387	0.77	1.03	1422	0.80	1.07	1457	0.83	1.11	1494	0.87	1.16	1532	0.89	1.20	1570	0.92	1.24
895	1900	1265	0.71	0.95	1301	0.75	1.00	1336	0.78	1.04	1371	0.81	1.08	1406	0.84	1.12	1441	0.87	1.16	1477	0.89	1.20	1515	0.92	1.24	1553	0.96	1.29	1592	0.99	1.33

BLOWER DATA - BELT DRIVE - LGH048

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

HORIZONTAL

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP						
425	900	483	0.07	0.10	554	0.10	0.13	627	0.12	0.16	699	0.14	0.19	765	0.16	0.22	826	0.18	0.24	882	0.20	0.27	935	0.22	0.30	986	0.25	0.33	1039	0.27	0.36
470	1000	505	0.09	0.12	576	0.12	0.16	648	0.14	0.19	719	0.16	0.21	784	0.18	0.24	842	0.20	0.27	896	0.22	0.30	947	0.25	0.33	998	0.28	0.37	1050	0.30	0.40
520	1100	530	0.11	0.15	601	0.13	0.18	671	0.16	0.21	741	0.18	0.24	804	0.20	0.27	860	0.22	0.30	912	0.25	0.34	961	0.28	0.37	1010	0.30	0.40	1060	0.32	0.43
565	1200	558	0.13	0.18	627	0.16	0.22	696	0.19	0.25	764	0.21	0.28	824	0.22	0.30	878	0.25	0.34	928	0.28	0.37	975	0.31	0.41	1023	0.33	0.44	1072	0.35	0.47
615	1300	588	0.16	0.22	656	0.19	0.25	723	0.21	0.28	788	0.23	0.31	846	0.25	0.34	897	0.28	0.38	945	0.31	0.42	990	0.34	0.45	1037	0.36	0.48	1084	0.38	0.51
660	1400	621	0.19	0.25	687	0.22	0.29	752	0.24	0.32	814	0.26	0.35	868	0.28	0.38	916	0.31	0.42	962	0.34	0.46	1006	0.37	0.50	1052	0.40	0.53	1098	0.42	0.56
710	1500	655	0.22	0.29	719	0.25	0.33	781	0.27	0.36	839	0.29	0.39	890	0.32	0.43	936	0.35	0.47	979	0.38	0.51	1023	0.41	0.55	1068	0.43	0.58	1113	0.45	0.61
755	1600	690	0.25	0.33	751	0.28	0.37	810	0.30	0.40	865	0.33	0.44	912	0.36	0.48	955	0.39	0.52	997	0.42	0.56	1041	0.45	0.60	1086	0.47	0.63	1129	0.49	0.66
800	1700	725	0.28	0.38	784	0.31	0.41	839	0.34	0.45	891	0.37	0.49	935	0.40	0.53	975	0.43	0.58	1017	0.46	0.62	1060	0.48	0.65	1104	0.51	0.68	1147	0.54	0.72
850	1800	761	0.31	0.42	816	0.34	0.46	868	0.37	0.50	916	0.41	0.55	957	0.44	0.59	997	0.48	0.64	1038	0.51	0.68	1081	0.53	0.71	1124	0.55	0.74	1165	0.59	0.79
895	1900	795	0.36	0.48	848	0.39	0.52	897	0.42	0.56	942	0.45	0.61	981	0.49	0.66	1020	0.52	0.70	1060	0.55	0.74	1103	0.57	0.77	1145	0.60	0.81	1183	0.63	0.85

Air Volume		External Static - Pa (in.w.g.)																													
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
425	900	1091	0.30	0.40	1138	0.32	0.43	1180	0.34	0.46	1220	0.37	0.49	1257	0.40	0.53	1293	0.42	0.56	1329	0.44	0.59	1364	0.46	0.62	1400	0.48	0.65	1435	0.51	0.69
470	1000	1101	0.32	0.43	1149	0.34	0.46	1190	0.37	0.50	1229	0.40	0.53	1266	0.43	0.57	1302	0.45	0.60	1338	0.47	0.63	1373	0.49	0.66	1408	0.52	0.70	1444	0.54	0.73
520	1100	1110	0.34	0.46	1156	0.37	0.50	1199	0.40	0.54	1238	0.43	0.57	1275	0.45	0.61	1311	0.48	0.64	1346	0.50	0.67	1381	0.53	0.71	1416	0.55	0.74	1452	0.58	0.78
565	1200	1119	0.37	0.50	1165	0.40	0.54	1207	0.43	0.58	1247	0.46	0.62	1284	0.48	0.65	1319	0.51	0.69	1355	0.54	0.72	1389	0.56	0.75	1425	0.59	0.79	1460	0.61	0.82
615	1300	1130	0.41	0.55	1175	0.44	0.59	1216	0.47	0.63	1255	0.49	0.66	1292	0.52	0.70	1328	0.55	0.74	1363	0.57	0.77	1398	0.60	0.80	1433	0.63	0.84	1469	0.65	0.87
660	1400	1143	0.45	0.60	1186	0.47	0.63	1226	0.50	0.67	1265	0.53	0.71	1302	0.56	0.75	1337	0.59	0.79	1372	0.61	0.82	1406	0.63	0.85	1441	0.66	0.89	1477	0.69	0.93
710	1500	1156	0.48	0.65	1198	0.51	0.69	1237	0.54	0.73	1275	0.57	0.77	1311	0.60	0.80	1346	0.63	0.84	1381	0.66	0.88	1415	0.68	0.91	1450	0.71	0.95	1486	0.73	0.98
755	1600	1171	0.52	0.70	1211	0.55	0.74	1249	0.58	0.78	1286	0.61	0.82	1321	0.64	0.86	1356	0.67	0.90	1390	0.69	0.93	1425	0.72	0.97	1460	0.75	1.01	1496	0.78	1.05
800	1700	1186	0.57	0.76	1225	0.60	0.80	1262	0.63	0.84	1298	0.66	0.88	1333	0.69	0.92	1367	0.72	0.96	1401	0.75	1.00	1436	0.77	1.03	1471	0.80	1.07	1507	0.84	1.12
850	1800	1202	0.62	0.83	1240	0.65	0.87	1276	0.68	0.91	1311	0.71	0.95	1345	0.74	0.99	1380	0.77	1.03	1413	0.80	1.07	1448	0.83	1.11	1483	0.86	1.15	1520	0.89	1.19
895	1900	1220	0.67	0.90	1256	0.70	0.94	1291	0.74	0.99	1326	0.77	1.03	1360	0.80	1.07	1393	0.82	1.10	1427	0.85	1.14	1462	0.88	1.18	1497	0.91	1.22	1534	0.95	1.27

BLOWER DATA - BELT DRIVE - LGH060

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (heat section, economizer, etc.).

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)											
		Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP									
L/s	cfm																														
520	1100	503	0.10	0.14	569	0.13	0.17	636	0.15	0.20	703	0.17	0.23	769	0.19	0.26	842	0.21	0.28	909	0.22	0.30	964	0.25	0.33	1008	0.27	0.36	1049	0.30	0.40
565	1200	525	0.12	0.16	590	0.15	0.20	657	0.17	0.23	722	0.19	0.26	787	0.22	0.29	857	0.23	0.31	921	0.25	0.34	974	0.28	0.37	1016	0.30	0.40	1056	0.32	0.43
615	1300	548	0.14	0.19	613	0.17	0.23	679	0.19	0.26	743	0.22	0.29	806	0.24	0.32	873	0.26	0.35	934	0.28	0.37	984	0.31	0.41	1026	0.33	0.44	1065	0.35	0.47
660	1400	574	0.16	0.22	638	0.19	0.26	702	0.22	0.30	765	0.25	0.33	827	0.27	0.36	891	0.29	0.39	949	0.31	0.41	996	0.34	0.45	1037	0.36	0.48	1076	0.38	0.51
710	1500	609	0.19	0.25	671	0.22	0.29	733	0.25	0.33	793	0.27	0.36	851	0.29	0.39	911	0.31	0.42	965	0.34	0.46	1010	0.37	0.49	1049	0.40	0.53	1088	0.42	0.56
755	1600	654	0.21	0.28	712	0.24	0.32	769	0.27	0.36	825	0.29	0.39	879	0.32	0.43	933	0.35	0.47	982	0.37	0.50	1024	0.40	0.54	1063	0.43	0.58	1101	0.45	0.61
800	1700	703	0.23	0.31	756	0.26	0.35	807	0.29	0.39	858	0.32	0.43	906	0.35	0.47	955	0.38	0.51	999	0.41	0.55	1039	0.44	0.59	1078	0.47	0.63	1117	0.49	0.66
850	1800	752	0.25	0.34	798	0.28	0.38	844	0.32	0.43	889	0.36	0.48	933	0.39	0.52	977	0.43	0.57	1017	0.45	0.61	1056	0.48	0.65	1094	0.51	0.68	1133	0.54	0.72
895	1900	796	0.28	0.38	837	0.32	0.43	878	0.36	0.48	918	0.40	0.53	958	0.43	0.58	997	0.46	0.62	1036	0.50	0.67	1074	0.53	0.71	1112	0.55	0.74	1151	0.57	0.77
945	2000	833	0.32	0.43	870	0.36	0.48	907	0.40	0.54	943	0.44	0.59	980	0.48	0.64	1018	0.51	0.69	1055	0.54	0.73	1093	0.57	0.77	1131	0.60	0.80	1170	0.62	0.83
990	2100	864	0.37	0.50	897	0.41	0.55	931	0.45	0.60	966	0.48	0.65	1002	0.53	0.71	1038	0.57	0.76	1075	0.60	0.80	1113	0.62	0.83	1151	0.65	0.87	1189	0.67	0.90
1040	2200	887	0.43	0.57	920	0.46	0.62	953	0.50	0.67	988	0.54	0.73	1024	0.58	0.78	1060	0.62	0.83	1097	0.65	0.87	1135	0.67	0.90	1173	0.70	0.94	1210	0.73	0.98
1085	2300	909	0.48	0.64	942	0.52	0.70	976	0.56	0.75	1011	0.60	0.81	1046	0.64	0.86	1083	0.68	0.91	1120	0.71	0.95	1157	0.73	0.98	1195	0.76	1.02	1231	0.79	1.06
1135	2400	931	0.54	0.72	965	0.58	0.78	999	0.62	0.83	1035	0.66	0.89	1071	0.70	0.94	1108	0.74	0.99	1144	0.77	1.03	1181	0.80	1.07	1217	0.82	1.10	1252	0.86	1.15

Air Volume		External Static - Pa (in.w.g.)																													
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
520	1100	1090	0.31	0.42	1132	0.34	0.45	1175	0.35	0.47	1216	0.37	0.50	1257	0.40	0.53	1296	0.42	0.56	1334	0.44	0.59	1370	0.46	0.62	1405	0.48	0.65	1439	0.51	0.69
565	1200	1097	0.34	0.46	1139	0.37	0.49	1181	0.38	0.51	1222	0.40	0.54	1263	0.43	0.57	1301	0.45	0.60	1338	0.47	0.63	1374	0.50	0.67	1409	0.52	0.70	1443	0.55	0.74
615	1300	1106	0.37	0.50	1147	0.40	0.53	1189	0.41	0.55	1230	0.43	0.58	1270	0.45	0.61	1307	0.48	0.65	1344	0.51	0.68	1379	0.54	0.72	1414	0.56	0.75	1447	0.59	0.79
660	1400	1116	0.40	0.54	1157	0.43	0.57	1198	0.45	0.60	1239	0.47	0.63	1278	0.49	0.66	1315	0.52	0.70	1351	0.55	0.74	1385	0.57	0.77	1419	0.60	0.81	1452	0.63	0.85
710	1500	1128	0.44	0.59	1168	0.46	0.62	1209	0.48	0.64	1249	0.51	0.68	1287	0.53	0.71	1323	0.56	0.75	1358	0.59	0.79	1393	0.62	0.83	1426	0.65	0.87	1458	0.68	0.91
755	1600	1141	0.48	0.64	1181	0.50	0.67	1222	0.52	0.70	1261	0.54	0.73	1298	0.57	0.77	1333	0.60	0.81	1367	0.63	0.85	1401	0.66	0.89	1433	0.69	0.93	1465	0.72	0.97
800	1700	1156	0.51	0.69	1196	0.54	0.72	1235	0.56	0.75	1273	0.59	0.79	1309	0.62	0.83	1344	0.65	0.87	1377	0.68	0.91	1410	0.72	0.96	1442	0.75	1.00	1473	0.78	1.04
850	1800	1172	0.56	0.75	1211	0.58	0.78	1250	0.60	0.81	1287	0.63	0.85	1322	0.67	0.90	1355	0.70	0.94	1388	0.73	0.98	1420	0.76	1.02	1451	0.80	1.07	1482	0.83	1.11
895	1900	1190	0.60	0.81	1228	0.63	0.84	1265	0.66	0.88	1301	0.69	0.92	1335	0.72	0.97	1367	0.75	1.01	1399	0.78	1.05	1431	0.82	1.10	1462	0.85	1.14	1492	0.88	1.18
945	2000	1208	0.65	0.87	1245	0.68	0.91	1281	0.72	0.96	1316	0.75	1.00	1349	0.78	1.04	1380	0.81	1.09	1412	0.84	1.13	1443	0.88	1.18	1473	0.91	1.22	1503	0.94	1.26
990	2100	1227	0.70	0.94	1263	0.74	0.99	1298	0.78	1.04	1331	0.81	1.08	1363	0.84	1.13	1394	0.87	1.17	1425	0.91	1.22	1455	0.94	1.26	1485	0.98	1.31	1515	1.01	1.35
1040	2200	1246	0.76	1.02	1281	0.80	1.07	1315	0.84	1.12	1347	0.87	1.17	1379	0.91	1.22	1409	0.94	1.26	1439	0.98	1.31	1469	1.01	1.36	1499	1.04	1.40	1529	1.08	1.45
1085	2300	1266	0.83	1.11	1300	0.87	1.16	1333	0.91	1.22	1364	0.95	1.27	1395	0.98	1.32	1424	1.01	1.36	1454	1.05	1.41	1484	1.09	1.46	1513	1.12	1.50	1543	1.16	1.55
1135	2400	1286	0.89	1.20	1319	0.94	1.26	1351	0.98	1.32	1382	1.03	1.38	1411	1.07	1.43	1440	1.10	1.48	1470	1.13	1.52	1499	1.17	1.57	1528	1.20	1.61	1558	1.24	1.66

BLOWER DATA - BELT DRIVE - LGH060

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

HORIZONTAL

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
520	1100	503	0.10	0.14	569	0.13	0.17	636	0.15	0.20	703	0.17	0.23	769	0.19	0.26	842	0.21	0.28	909	0.22	0.30	964	0.25	0.33	1008	0.27	0.36	1049	0.30	0.40
565	1200	525	0.12	0.16	590	0.15	0.20	657	0.17	0.23	722	0.19	0.26	787	0.22	0.29	857	0.23	0.31	921	0.25	0.34	974	0.28	0.37	1016	0.30	0.40	1056	0.32	0.43
615	1300	548	0.14	0.19	613	0.17	0.23	679	0.19	0.26	743	0.22	0.29	806	0.24	0.32	873	0.26	0.35	934	0.28	0.37	984	0.31	0.41	1026	0.33	0.44	1065	0.35	0.47
665	1400	574	0.16	0.22	638	0.19	0.26	702	0.22	0.30	765	0.25	0.33	827	0.27	0.36	891	0.29	0.39	949	0.31	0.41	996	0.34	0.45	1037	0.36	0.48	1076	0.38	0.51
710	1500	609	0.19	0.25	671	0.22	0.29	733	0.25	0.33	793	0.27	0.36	851	0.29	0.39	911	0.31	0.42	965	0.34	0.46	1010	0.37	0.49	1049	0.40	0.53	1088	0.42	0.56
755	1600	654	0.21	0.28	712	0.24	0.32	769	0.27	0.36	825	0.29	0.39	879	0.32	0.43	933	0.35	0.47	982	0.37	0.50	1024	0.40	0.54	1063	0.43	0.58	1101	0.45	0.61
800	1700	703	0.23	0.31	756	0.26	0.35	807	0.29	0.39	858	0.32	0.43	906	0.35	0.47	955	0.38	0.51	999	0.41	0.55	1039	0.44	0.59	1078	0.47	0.63	1117	0.49	0.66
850	1800	752	0.25	0.34	798	0.28	0.38	844	0.32	0.43	889	0.36	0.48	933	0.39	0.52	977	0.43	0.57	1017	0.45	0.61	1056	0.48	0.65	1094	0.51	0.68	1133	0.54	0.72
895	1900	796	0.28	0.38	837	0.32	0.43	878	0.36	0.48	918	0.40	0.53	958	0.43	0.58	997	0.46	0.62	1036	0.50	0.67	1074	0.53	0.71	1112	0.55	0.74	1151	0.57	0.77
945	2000	833	0.32	0.43	870	0.36	0.48	907	0.40	0.54	943	0.44	0.59	980	0.48	0.64	1018	0.51	0.69	1055	0.54	0.73	1093	0.57	0.77	1131	0.60	0.80	1170	0.62	0.83
990	2100	864	0.37	0.50	897	0.41	0.55	931	0.45	0.60	966	0.48	0.65	1002	0.53	0.71	1038	0.57	0.76	1075	0.60	0.80	1113	0.62	0.83	1151	0.65	0.87	1189	0.67	0.90
1040	2200	887	0.43	0.57	920	0.46	0.62	953	0.50	0.67	988	0.54	0.73	1024	0.58	0.78	1060	0.62	0.83	1097	0.65	0.87	1135	0.67	0.90	1173	0.70	0.94	1210	0.73	0.98
1085	2300	909	0.48	0.64	942	0.52	0.70	976	0.56	0.75	1011	0.60	0.81	1046	0.64	0.86	1083	0.68	0.91	1120	0.71	0.95	1157	0.73	0.98	1195	0.76	1.02	1231	0.79	1.06
1135	2400	931	0.54	0.72	965	0.58	0.78	999	0.62	0.83	1035	0.66	0.89	1071	0.70	0.94	1108	0.74	0.99	1144	0.77	1.03	1181	0.80	1.07	1217	0.82	1.10	1252	0.86	1.15

Air Volume		External Static - Pa (in.w.g.)																													
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
520	1100	1090	0.31	0.42	1132	0.34	0.45	1175	0.35	0.47	1216	0.37	0.50	1257	0.40	0.53	1296	0.42	0.56	1334	0.44	0.59	1370	0.46	0.62	1405	0.48	0.65	1439	0.51	0.69
565	1200	1097	0.34	0.46	1139	0.37	0.49	1181	0.38	0.51	1222	0.40	0.54	1263	0.43	0.57	1301	0.45	0.60	1338	0.47	0.63	1374	0.50	0.67	1409	0.52	0.70	1443	0.55	0.74
615	1300	1106	0.37	0.50	1147	0.40	0.53	1189	0.41	0.55	1230	0.43	0.58	1270	0.45	0.61	1307	0.48	0.65	1344	0.51	0.68	1379	0.54	0.72	1414	0.56	0.75	1447	0.59	0.79
665	1400	1116	0.40	0.54	1157	0.43	0.57	1198	0.45	0.60	1239	0.47	0.66	1278	0.49	0.66	1315	0.52	0.70	1351	0.55	0.74	1385	0.57	0.77	1419	0.60	0.81	1452	0.63	0.85
710	1500	1128	0.44	0.59	1168	0.46	0.62	1209	0.48	0.64	1249	0.51	0.68	1287	0.53	0.71	1323	0.56	0.75	1358	0.59	0.79	1393	0.62	0.83	1426	0.65	0.87	1458	0.68	0.91
755	1600	1141	0.48	0.64	1181	0.50	0.67	1222	0.52	0.70	1261	0.54	0.73	1298	0.57	0.77	1333	0.60	0.81	1367	0.63	0.85	1401	0.66	0.89	1433	0.69	0.93	1465	0.72	0.97
800	1700	1156	0.51	0.69	1196	0.54	0.72	1235	0.56	0.75	1273	0.59	0.79	1309	0.62	0.83	1344	0.65	0.87	1377	0.68	0.91	1410	0.72	0.96	1442	0.75	1.00	1473	0.78	1.04
850	1800	1172	0.56	0.75	1211	0.58	0.78	1250	0.60	0.81	1287	0.63	0.85	1322	0.67	0.90	1355	0.70	0.94	1388	0.73	0.98	1420	0.76	1.02	1451	0.80	1.07	1482	0.83	1.11
895	1900	1190	0.60	0.81	1228	0.63	0.84	1265	0.66	0.88	1301	0.69	0.92	1335	0.72	0.97	1367	0.75	1.01	1399	0.78	1.05	1431	0.82	1.10	1462	0.85	1.14	1492	0.88	1.18
945	2000	1208	0.65	0.87	1245	0.68	0.91	1281	0.72	0.96	1316	0.75	1.00	1349	0.78	1.04	1380	0.81	1.09	1412	0.84	1.13	1443	0.88	1.18	1473	0.91	1.22	1503	0.94	1.26
990	2100	1227	0.70	0.94	1263	0.74	0.99	1298	0.78	1.04	1331	0.81	1.08	1363	0.84	1.13	1394	0.87	1.17	1425	0.91	1.22	1455	0.94	1.26	1485	0.98	1.31	1515	1.01	1.35
1040	2200	1246	0.76	1.02	1281	0.80	1.07	1315	0.84	1.12	1347	0.87	1.17	1379	0.91	1.22	1409	0.94	1.26	1439	0.98	1.31	1469	1.01	1.36	1499	1.04	1.40	1529	1.08	1.45
1085	2300	1266	0.83	1.11	1300	0.87	1.16	1333	0.91	1.22	1364	0.95	1.27	1395	0.98	1.32	1424	1.01	1.36	1454	1.05	1.41	1484	1.09	1.46	1513	1.12	1.50	1543	1.16	1.55
1135	2400	1286	0.89	1.20	1319	0.94	1.26	1351	0.98	1.32	1382	1.03	1.38	1411	1.07	1.43	1440	1.10	1.48	1470	1.13	1.52	1499	1.17	1.57	1528	1.20	1.61	1558	1.24	1.66

BLOWER DATA - BELT DRIVE - LGH072 / LGH074

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

Air Volume		External Static - Pa (in.w.g.)																							
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)					
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
895	1900	510	0.34	0.45	544	0.37	0.5	579	0.41	0.55	614	0.45	0.6	649	0.48	0.65	684	0.52	0.7	718	0.55	0.74	752	0.59	0.79
945	2000	526	0.37	0.49	560	0.41	0.55	595	0.45	0.6	629	0.48	0.65	663	0.52	0.7	697	0.56	0.75	730	0.59	0.79	763	0.63	0.84
990	2100	542	0.40	0.54	576	0.44	0.59	610	0.48	0.65	644	0.52	0.7	678	0.56	0.75	711	0.60	0.8	743	0.63	0.84	775	0.66	0.89
1040	2200	560	0.44	0.59	593	0.48	0.64	627	0.52	0.7	660	0.56	0.75	693	0.60	0.8	725	0.63	0.85	757	0.67	0.9	787	0.70	0.94
1085	2300	578	0.48	0.64	610	0.52	0.7	644	0.56	0.75	676	0.60	0.81	709	0.64	0.86	740	0.68	0.91	770	0.71	0.95	799	0.75	1
1135	2400	597	0.52	0.7	629	0.56	0.75	661	0.60	0.81	693	0.64	0.86	725	0.68	0.91	755	0.72	0.96	784	0.75	1.01	812	0.79	1.06
1180	2500	617	0.57	0.76	648	0.60	0.81	679	0.65	0.87	710	0.69	0.92	741	0.72	0.97	770	0.77	1.03	799	0.81	1.08	825	0.84	1.13
1225	2600	637	0.61	0.82	667	0.65	0.87	698	0.69	0.93	728	0.73	0.98	758	0.78	1.04	786	0.81	1.09	814	0.86	1.15	839	0.89	1.2
1275	2700	658	0.66	0.88	687	0.70	0.94	717	0.75	1	746	0.78	1.05	775	0.83	1.11	802	0.87	1.16	829	0.91	1.22	853	0.95	1.27
1320	2800	679	0.71	0.95	708	0.75	1.01	736	0.80	1.07	764	0.84	1.12	792	0.88	1.18	819	0.92	1.24	844	0.97	1.3	868	1.01	1.35
1370	2900	701	0.76	1.02	728	0.81	1.08	756	0.85	1.14	783	0.89	1.2	809	0.94	1.26	835	0.98	1.32	860	1.03	1.38	884	1.07	1.43

External Static - Pa (in.w.g.)

Air Volume		External Static - Pa (in.w.g.)																							
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)					
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP
895	1900	837	0.69	0.92	861	0.72	0.96	886	0.75	1	913	0.78	1.04	939	0.80	1.07	966	0.83	1.11	992	0.87	1.16	1017	0.90	1.21
945	2000	845	0.72	0.97	870	0.75	1.01	895	0.78	1.05	921	0.81	1.09	948	0.84	1.12	974	0.87	1.17	999	0.91	1.22	1023	0.95	1.27
990	2100	855	0.76	1.02	879	0.79	1.06	904	0.82	1.1	930	0.85	1.14	956	0.88	1.18	982	0.91	1.22	1006	0.95	1.28	1030	1.00	1.34
1040	2200	865	0.81	1.08	889	0.84	1.12	914	0.86	1.15	940	0.89	1.19	966	0.92	1.24	990	0.96	1.29	1014	1.00	1.34	1037	1.05	1.41
1085	2300	875	0.84	1.13	900	0.87	1.17	925	0.90	1.21	951	0.93	1.25	976	0.97	1.3	999	1.01	1.35	1022	1.05	1.41	1044	1.10	1.48
1135	2400	887	0.89	1.19	912	0.92	1.23	936	0.95	1.27	961	0.98	1.32	986	1.02	1.37	1009	1.07	1.43	1031	1.11	1.49	1052	1.17	1.57
1180	2500	899	0.93	1.25	923	0.96	1.29	948	1.00	1.34	973	1.04	1.39	996	1.07	1.44	1018	1.13	1.51	1039	1.18	1.58	1060	1.23	1.65
1225	2600	912	0.98	1.32	936	1.01	1.36	960	1.05	1.41	984	1.09	1.46	1007	1.13	1.52	1028	1.19	1.59	1049	1.25	1.67	1069	1.30	1.75
1275	2700	925	1.04	1.4	949	1.07	1.44	973	1.11	1.49	996	1.16	1.55	1018	1.20	1.61	1038	1.26	1.69	1058	1.31	1.76	1078	1.37	1.84
1320	2800	939	1.10	1.47	962	1.13	1.52	985	1.17	1.57	1008	1.22	1.64	1029	1.28	1.71	1049	1.33	1.79	1069	1.39	1.87	1088	1.45	1.94
1370	2900	953	1.16	1.56	976	1.20	1.61	998	1.25	1.67	1020	1.29	1.73	1041	1.35	1.81	1060	1.41	1.89	1079	1.48	1.98	1098	1.54	2.06

BLOWER DATA - BELT DRIVE - LGH072 / LGH074

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (heat section, economizer, etc.).
- 2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.).

See page 30 for blower motors and drives and wet coil and options/accessory air resistance data.

HORIZONTAL

Air Volume		External Static - Pa (in.w.g.)																													
		25 (0.10)		50 (0.20)		75 (0.30)		100 (0.40)		125 (0.50)		150 (0.60)		175 (0.70)		200 (0.80)		225 (0.90)		250 (1.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
895	1900	485	0.41	0.55	516	0.43	0.57	549	0.44	0.59	583	0.46	0.62	618	0.48	0.65	654	0.51	0.69	689	0.54	0.73	724	0.57	0.77	758	0.61	0.82	790	0.64	0.86
945	2000	499	0.44	0.59	531	0.45	0.61	563	0.47	0.63	597	0.49	0.66	631	0.52	0.70	666	0.54	0.73	701	0.57	0.77	734	0.61	0.82	767	0.64	0.86	798	0.68	0.91
990	2100	514	0.47	0.63	546	0.48	0.65	578	0.51	0.68	611	0.53	0.71	645	0.55	0.74	679	0.58	0.78	712	0.61	0.82	745	0.64	0.86	777	0.68	0.91	806	0.72	0.96
1040	2200	530	0.51	0.68	562	0.52	0.70	594	0.54	0.73	627	0.57	0.76	660	0.59	0.79	693	0.62	0.83	725	0.65	0.87	757	0.69	0.92	787	0.72	0.96	816	0.75	1.01
1085	2300	548	0.54	0.73	579	0.56	0.75	610	0.58	0.78	643	0.60	0.81	675	0.63	0.85	707	0.66	0.88	738	0.69	0.93	769	0.72	0.97	798	0.76	1.02	826	0.79	1.06
1135	2400	566	0.58	0.78	596	0.60	0.81	628	0.63	0.84	659	0.65	0.87	691	0.67	0.90	722	0.70	0.94	752	0.73	0.98	782	0.77	1.03	810	0.81	1.08	837	0.84	1.12
1180	2500	585	0.63	0.84	615	0.64	0.86	645	0.67	0.90	676	0.69	0.93	707	0.72	0.96	737	0.75	1.00	767	0.78	1.05	795	0.81	1.09	822	0.85	1.14	848	0.89	1.19
1225	2600	604	0.67	0.90	634	0.69	0.93	664	0.72	0.96	694	0.74	0.99	724	0.77	1.03	753	0.80	1.07	781	0.83	1.11	809	0.86	1.15	835	0.89	1.20	861	0.93	1.25
1275	2700	624	0.72	0.96	653	0.74	0.99	682	0.76	1.02	712	0.79	1.06	741	0.81	1.09	769	0.84	1.13	796	0.88	1.18	823	0.91	1.22	849	0.95	1.27	873	0.98	1.32
1320	2800	645	0.76	1.02	673	0.78	1.05	701	0.81	1.09	730	0.84	1.12	758	0.87	1.16	785	0.89	1.20	812	0.93	1.25	838	0.96	1.29	862	1.00	1.34	886	1.04	1.39
1370	2900	665	0.81	1.09	693	0.84	1.12	721	0.87	1.16	748	0.89	1.19	775	0.92	1.23	802	0.95	1.27	827	0.98	1.32	852	1.01	1.36	877	1.05	1.41	900	1.09	1.46

Air Volume		External Static - Pa (in.w.g.)																													
		275 (1.10)		300 (1.20)		325 (1.30)		350 (1.40)		375 (1.50)		400 (1.60)		425 (1.70)		450 (1.80)		475 (1.90)		500 (2.00)											
L/s	cfm	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP	Rev/ min	kW	BHP			
895	1900	819	0.67	0.90	846	0.70	0.94	871	0.73	0.98	897	0.76	1.02	922	0.78	1.05	948	0.81	1.09	974	0.84	1.13	999	0.88	1.18	1025	0.92	1.23	1050	0.95	1.28
945	2000	826	0.71	0.95	852	0.74	0.99	877	0.77	1.03	902	0.79	1.06	928	0.82	1.10	953	0.85	1.14	979	0.88	1.18	1004	0.92	1.23	1029	0.95	1.28	1054	1.00	1.34
990	2100	834	0.75	1.00	859	0.78	1.04	884	0.81	1.08	909	0.84	1.12	934	0.86	1.15	960	0.89	1.20	985	0.92	1.24	1010	0.96	1.29	1034	1.01	1.35	1058	1.04	1.40
1040	2200	842	0.78	1.05	868	0.82	1.1	892	0.84	1.13	917	0.87	1.17	942	0.90	1.21	967	0.94	1.26	992	0.97	1.3	1016	1.01	1.36	1040	1.05	1.41	1063	1.10	1.47
1085	2300	852	0.83	1.11	877	0.86	1.15	901	0.89	1.19	926	0.92	1.23	950	0.95	1.27	975	0.98	1.32	999	1.02	1.37	1023	1.06	1.42	1046	1.10	1.48	1069	1.15	1.54
1135	2400	862	0.87	1.17	887	0.90	1.21	911	0.93	1.25	935	0.97	1.30	959	1.00	1.34	983	1.04	1.39	1007	1.07	1.44	1030	1.12	1.50	1053	1.16	1.56	1075	1.21	1.62
1180	2500	873	0.92	1.23	897	0.95	1.28	921	0.98	1.32	945	1.01	1.36	969	1.05	1.41	992	1.09	1.46	1016	1.13	1.52	1038	1.18	1.58	1060	1.22	1.64	1082	1.27	1.70
1225	2600	885	0.97	1.30	909	1.00	1.34	932	1.04	1.39	955	1.07	1.43	979	1.11	1.49	1002	1.15	1.54	1025	1.19	1.6	1047	1.24	1.66	1069	1.29	1.73	1090	1.33	1.79
1275	2700	897	1.02	1.37	920	1.05	1.41	944	1.09	1.46	967	1.13	1.51	990	1.17	1.57	1012	1.21	1.62	1034	1.26	1.69	1056	1.30	1.75	1077	1.36	1.82	1098	1.41	1.89
1320	2800	910	1.07	1.44	933	1.11	1.49	955	1.15	1.54	978	1.19	1.60	1001	1.23	1.65	1023	1.28	1.72	1044	1.33	1.78	1066	1.38	1.85	1086	1.43	1.92	1107	1.48	1.99
1370	2900	923	1.13	1.52	945	1.17	1.57	968	1.22	1.63	990	1.25	1.68	1012	1.30	1.75	1034	1.35	1.81	1055	1.40	1.88	1076	1.45	1.95	1096	1.51	2.02	1116	1.55	2.09

BLOWER DATA

BELT DRIVE KIT SPECIFICATIONS - 036-060

Model No.	Motor kW		Motor HP		No. of Speeds	Drive Kits and rev/min Range					
	Nom.	Max.	Nom.	Max.		A01	A02	A03	A05	A06	A07
036	0.47	0.54	0.63	0.72	2	low 374-561 high 561-842	---	---	---	---	---
	0.62	0.71	0.83	0.95	2	---	---	---	low 498-748 high 748-1122	---	---
048	0.47	0.54	0.63	0.72	2	---	low 414-621 high 621-931	---	---	---	---
	1.24	1.42	1.66	1.91	2	---	---	---	---	low 595-794 high 893-1191	---
060	0.62	0.71	0.83	0.95	2	---	---	low 463-694 high 694-1042	---	---	---
	1.24	1.42	1.66	1.91	2	---	---	---	---	---	low 673-860 high 1010-1290

NOTE - Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor output required. Maximum usable output of motors furnished are shown. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

BELT DRIVE KIT SPECIFICATIONS - 072-074

Model No.	Motor kW		Motor HP		No. of Speeds	Drive Kits and rev/min Range		
	Nom.	Max.	Nom.	Max.		AA02	AA03	AA04
072	1.5	1.7	2	2.3	1	527-729	665-921	768-1023
074	0.75	0.88	1	1.15	2	---	665-921	768-1023
	1.5	1.7	2	2.3	2	---	665-921	768-1023

NOTE - Using total air volume and system static pressure requirements determine from blower performance tables rev/min and motor output required. Maximum usable output of motors furnished are shown. If motors of comparable output are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

FACTORY INSTALLED OPTIONS/FIELD INSTALLED ACCESSORY AIR RESISTANCE - in. w.g.

Air Volume cfm	Wet Indoor Coil			Humiditrol Dehumid ification Coil	Gas Heating		Econo- mizer	Filters	
	036	048	060, 072, 074		Medium Heat	High Heat		MERV 8	MERV 13

036-048 MODELS

L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
380	800	2	0.01	2	0.01	---	---	0	0.00	5	0.02	5	0.02	10	0.04	10	0.04	12	0.05
470	1000	5	0.02	5	0.02	---	---	0	0.00	5	0.02	5	0.02	10	0.04	10	0.04	17	0.07
565	1200	7	0.03	10	0.04	---	---	2	0.01	5	0.02	5	0.02	10	0.04	10	0.04	17	0.07
660	1400	10	0.04	12	0.05	---	---	5	0.02	5	0.02	7	0.03	10	0.04	10	0.04	17	0.07
755	1600	12	0.05	15	0.06	---	---	7	0.03	7	0.03	10	0.04	10	0.04	10	0.04	17	0.07
850	1800	15	0.06	17	0.07	---	---	10	0.04	10	0.04	12	0.05	12	0.05	10	0.04	17	0.07
945	2000	20	0.08	22	0.09	---	---	10	0.04	10	0.04	15	0.06	12	0.05	12	0.05	20	0.08

060, 072, 074 MODELS

L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
470	1000	---	---	---	---	5	0.02	0	0.00	5	0.02	5	0.02	10	0.04	7	0.03	12	0.05
565	1200	---	---	---	---	10	0.04	0	0.00	5	0.02	5	0.02	10	0.04	7	0.03	17	0.07
660	1400	---	---	---	---	12	0.05	2	0.01	5	0.02	7	0.03	10	0.04	10	0.04	17	0.07
755	1600	---	---	---	---	17	0.07	5	0.02	7	0.03	10	0.04	10	0.04	10	0.04	17	0.07
850	1800	---	---	---	---	20	0.08	5	0.02	7	0.03	12	0.05	12	0.05	12	0.05	17	0.07
945	2000	---	---	---	---	24	0.10	7	0.03	10	0.04	15	0.06	12	0.05	12	0.05	17	0.07
1040	2200	---	---	---	---	27	0.11	10	0.04	10	0.04	17	0.07	12	0.05	12	0.05	20	0.08
1135	2400	---	---	---	---	32	0.13	10	0.04	12	0.05	20	0.08	12	0.05	12	0.05	20	0.08
1225	2600	---	---	---	---	37	0.15	12	0.05	12	0.05	22	0.09	15	0.06	12	0.05	20	0.08
1321	2800	---	---	---	---	40	0.16	12	0.05	15	0.06	24	0.10	15	0.06	12	0.05	20	0.08
1416	3000	---	---	---	---	45	0.18	15	0.06	17	0.07	27	0.11	15	0.06	12	0.05	20	0.08

BLOWER DATA

POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure		Air Volume Exhausted	
Pa	in. w.g.	L/s	cfm
0	0.00	787	1665
12	0.05	783	1660
25	0.10	757	1605
37	0.15	712	1510
50	0.20	654	1385
62	0.25	593	1255
75	0.30	531	1125
87	0.35	476	1010

CEILING DIFFUSERS AIR RESISTANCE

Air Volume		RTD9-65S Step-Down Diffuser						FD9-65S Flush Diffuser		RTD11-95S Step-Down Diffuser						FD11-95S Flush Diffuser	
		2 Ends Open		1 Side & 2 Ends Open		All Ends & Sides Open				2 Ends Open		1 Side & 2 Ends Open		All Ends & Sides Open			
L/s	cfm	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa	in. w.g.
378	800	37	0.15	32	0.13	27	0.11	27	0.11	---	---	---	---	---	---	---	---
472	1000	47	0.19	40	0.16	35	0.14	35	0.14	---	---	---	---	---	---	---	---
566	1200	62	0.25	50	0.20	42	0.17	42	0.17	---	---	---	---	---	---	---	---
661	1400	82	0.33	65	0.26	50	0.20	50	0.20	---	---	---	---	---	---	---	---
755	1600	107	0.43	80	0.32	50	0.20	60	0.24	---	---	---	---	---	---	---	---
849	1800	139	0.56	99	0.40	75	0.30	75	0.30	32	0.13	27	0.11	22	0.09	22	0.09
944	2000	182	0.73	124	0.50	90	0.36	90	0.36	37	0.15	32	0.13	27	0.11	25	0.10
1038	2200	236	0.95	157	0.63	109	0.44	109	0.44	45	0.18	37	0.15	30	0.12	30	0.12
1133	2400	---	---	---	---	---	---	---	---	52	0.21	45	0.18	37	0.15	35	0.14
1227	2600	---	---	---	---	---	---	---	---	60	0.24	52	0.21	45	0.18	42	0.17
1321	2800	---	---	---	---	---	---	---	---	67	0.27	60	0.24	52	0.21	50	0.20
1416	3000	---	---	---	---	---	---	---	---	80	0.32	72	0.29	62	0.25	62	0.25

CEILING DIFFUSER AIR THROW DATA

Air Volume		¹ Effective Throw			
L/s	cfm	m		ft.	
Model No.		RTD9-65S		FD9-65S	
378	800	3 - 5		4 - 5	
472	1000	3 - 5		4 - 6	
566	1200	3 - 5		5 - 7	
661	1400	3 - 6		5 - 7	
755	1600	3 - 6		5 - 8	
849	1800	4 - 6		6 - 9	
944	2000	4 - 7		6 - 9	
1038	2200	5 - 8		7 - 9	
Model No.		RTD11-95S		FD11-95S	
1227	2600	7 - 9		6 - 7	
1321	2800	8 - 9		6 - 9	
1416	3000	8 - 10		6 - 9	

¹ Effective throw based on terminal velocities of 23 m (75 ft.) per minute.

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Case No(s). 18-0893-EL-EEC

Summary: Application Advance Auto Parts and Ohio Power Company for approval of a special arrangement agreement with a mercantile customer electronically filed by Mr. Steven T Nourse on behalf of Ohio Power Company