



Case No.: ____-____-EL-EEC

Mercantile Customer: The Cincinnati Financial Corporation

Electric Utility: Duke Energy

**Program Title or
Description:** HVAC and Motors

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: Mercantile Customer Information

Name: **The Cincinnati Financial Corporation**

Principal address: **PO Box 145496, Cincinnati, Ohio 45250**

Address of facility for which this energy efficiency program applies:

3818 Red Bank Road, Cincinnati, Ohio 45227

Name and telephone number for responses to questions:

Grady Reid, Jr. 513-287-1038

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

- ☒ **The customer uses more than seven hundred thousand kilowatt hours per year at the above facility. (Please attach documentation.)**
- ☐ The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.)

12 Month billing History

33003647 01

CINCINNATI FINANCIAL CORP

6200 GILMORE RD SMISC: TOWER 3

FAIRFIELD, OH 45014

		Actual	
Date	Days	KWH	Bill KWH
9/22/2011	30	945,065	930,889
8/23/2011	29	1,158,533	1,141,155
7/25/2011	32	1,317,370	1,297,609
6/23/2011	30	1,178,719	1,161,038
5/24/2011	29	1,029,029	1,013,594
4/25/2011	32	873,043	859,947
3/24/2011	29	847,188	834,480
2/23/2011	29	576,619	567,970
1/25/2011	34	716,551	705,803
12/22/2010	33	757,512	746,149
11/19/2010	29	755,261	743,932
10/21/2010	29	805,080	793,004

Total 10,795,570 kWh

Section 2: Application Information

- A) The customer is filing this application (choose which applies):
- ☐ Individually, without electric utility participation.
 - ☒ **Jointly with the electric utility.**
- B) The electric utility is: **Duke Energy**
- C) The customer is offering to commit (check any that apply):
- ☐ Energy savings from the customer's 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 capacity savings 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 (check those that apply):
- ☐ Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, and the date on which the customer would have replaced such equipment if it had not been replaced 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)).
 - ☐ 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): April 2008 through April 2009 (see individual applications for individual dates).

- ☐ Behavioral or operational improvement.

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

- 1) If you checked the box indicating that the 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:

Annual savings: _____kWh

- 2) If you checked the box indicating that the customer 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 any less efficient new equipment that was rejected in favor of the more efficient new equipment.

- 3) If you checked the box indicating that the 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: 437,909 kWh gross with
losses**

Measure	Annual kWh Gross with losses	Upload Amount	TOTAL Annual kWh losses	KW Per Measure	Total Kw Savings
HVAC 65000-135000	62.92	30	1887.6	0.02	0.6
Chiller-Water-Centrifugal >300 0.58 with 0.35	188.23	2025	381165.75	0.07	141.75
Motor 1-5 hp	120.94	1	120.94	0.03	0.03
HVAC 136000 - 240000	111.54	87	9703.98	0.04	3.48
Motors 7.5-20 hp	437.49	17	7437.33	0.12	2.04
Motors 25-100 hp	1132.34	24	27176.16	0.31	7.44
Motors 125-250 hp	2604.39	4	10417.56	0.71	2.84
Totals			437909.32		158.18

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

Standard efficient equipment was the basis for comparison for calculating energy savings.

- 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):
 - ☐ 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?

April 2008

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

158.8 KW (see above chart)

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 energy efficiency 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 **\$42,727.50**. (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.)

Measure ID	Energy Conservation Measure (ECM)	Proposed Rebate Amount
ECM-1	Unitary AC's	\$2,095.00
ECM-2	Chiller	\$34,425.00
ECM-3	Motors	\$6207.50
ECM-4		
ECM-5		
Total		\$42,727.50

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 the customer's ongoing efficiency program. (Attach documentation that establishes the ongoing nature of the program.) In order to continue the exemption beyond the initial 24 month period, the customer 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: ____ (Skip to Subsection 2.)**
See table below

Measure	UCT
HVAC 65000-135000	1.92
Chiller-Water-Centrifuge >300 - 0.58 with 0.35	5.34
Motor 1-5 hp	3.39
HVAC 136000 - 240000	2.12
Motors 7.5-20 hp	2.95
Motors 25-100 hp	2.93
Motors 125-250 hp	2.53

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 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 \$496,103.

Measure	Qty	T&D	Production	Capacity	Total Avoided Costs
HVAC 65000-135000	30	\$4	\$23	\$14	\$1,230
Chiller-Water-Centrifugal >300 0.58 with 0.35	2025	\$25	\$126	\$77	\$461,700
Motor 1-5 hp	1	\$6	\$46	\$20	\$72
HVAC 136000 - 240000	87	\$8	\$40	\$24	\$6,264
Motors 7.5-20 hp	17	\$23	\$166	\$72	\$4,437
Motors 25-100 hp	24	\$60	\$429	\$186	\$16,200
Motors 125-250 hp	4	\$137	\$986	\$427	\$6,200
Total					\$496,103

Do we need a table that shows the avoided cost by measure? What did the Lakota application show?

The utility's program costs were **\$26,472**

	Qty	Admin Costs	Total Costs
HVAC 65000-135000	30	\$8	\$240
Chiller-Water-Centrifugal >300 0.58 with 0.35	2025	\$10.68	\$21,627
Motor 1-5 hp	1	\$9	\$9
HVAC 136000 - 240000	87	\$8	\$696
Motors 7.5-20 hp	17	\$36	\$612
Motors 25-100 hp	24	\$95	\$2,280
Motors 125-250 hp	4	\$252	\$1,008
			\$26,472

The utility's incentive costs/rebate costs were **\$42,727.50**.

HVAC 65000-135000	\$375.00
Chiller-Water-Centrifugal >300 0.58 with 0.35	\$34,425.00
Motor 1-5 hp	\$15.00
HVAC 136000 - 240000	\$1,720.00
Motors 7.5-20 hp	\$980.00
Motors 25-100 hp	\$4,212.50
Motors 125-250 hp	\$1,000.00
	\$42,727.50

Section 7: Additional Information

Please attach the following supporting documentation to this application:

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

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

- 1) any confidentiality requirements associated with the agreement;
- 2) a description of any consequences of noncompliance with the terms of the commitment;
- 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;

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

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.



**Public Utilities
Commission**

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

Case No.: ____-____-EL-EEC

State of _____:

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

1. I am the duly authorized representative of:

[insert customer or EDU company name and any applicable name(s) doing business as]

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.

Signature of Affiant & Title

Sworn and subscribed before me this ____ day of _____, ____ Month/Year

Signature of official administering oath

Print Name and Title

My commission expires on _____



DUKE ENERGY CORPORATION
Mercantile Self Direct Program
139 East Fourth Street
Cincinnati, OH 45202
513 419 5572 fax

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spelling or grammar

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Template 2011 07 14-keller.docx

Deleted: 10/20/11

October 20, 2011

Mr. Jon Curtis
The Cincinnati Financial Corporation
PO Box 145496
Cincinnati, Ohio 45250

Subject: Your Application for a Duke Energy Mercantile Self-Direct Rebate

Dear Mr. Curtis:

Thank you for your Duke Energy Mercantile Self Direct rebate application. As noted in the Energy Conservation Measure (ECM) chart on page two, a total rebate of \$42,727.50 has been proposed for your HVAC, chiller, and motors projects completed in the 2008 - 2009 calendar years. All Self Direct Rebates are contingent upon approval by the Public Utilities Commission of Ohio (PUCO).

At your earliest convenience, please indicate if you accept this rebate by

- providing your signature on page two
- completing the PUCO-required affidavit on page three.

Please return the documents to my attention via fax at 513-419-5572 or e-mail (SelfDirect@Duke-Energy.com). Upon receipt, Duke Energy will submit the necessary documentation to PUCO. Following PUCO's approval, Duke Energy will remit payment.

At Duke Energy, we value your business and look forward to working with you on this and future energy efficiency projects. We hope you will consider our Smart Saver® incentives, when applicable. Please contact me if you have any questions.

Sincerely,

Grady Reid, Jr.
Product Manager, Self Direct Prescriptive Incentives

cc: Mr. Mike Harp, Duke Energy

Please indicate your response to this rebate offer within 30 days of receipt.

www.duke-energy.com

☒ Rebate is accepted.

☐ Rebate is declined.

By accepting this rebate, The Cincinnati Financial Corporation affirms its intention to commit and integrate the energy efficiency projects listed on the following pages into Duke Energy's peak demand reduction, demand response and/or energy efficiency programs.

Additionally, The Cincinnati Financial Corporation also agrees to serve as joint applicant in any future filings necessary to secure approval of this arrangement as required by PUCO and to comply with any information and reporting requirements imposed by rule or as part of that approval.

Finally, The Cincinnati Financial Corporation affirms that all application information submitted to Duke Energy pursuant to this rebate offer is true and accurate. Information in question would include, but not be limited to, project scope, equipment specifications, equipment operational details, project costs, project completion dates, and the quantity of energy conservation measures installed.

If rebate is accepted, will you use the monies to fund future energy efficiency and/or demand reduction projects?

☒ YES

☐ NO

If rebate is declined, please indicate reason (optional):



Customer Signature

MICHAEL SEWELL, CFO 11/17/11

Printed Name

Date

Proposed Rebate Amounts

Measure ID	Energy Conservation Measure (ECM)	Proposed Rebate Amount
ECM-1	Unitary AC's	\$2,095.00
ECM-2	Chiller	\$34,425.00
ECM-3	Motors	\$6207.50
ECM-4		
ECM-5		
Total		\$42,727.50



Public Utilities
Commission

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

Case No.: ____ - ____ -EL-EEC

State of Ohio :

MICHAEL SEWELL, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

Cincinnati Financial Corporation
[insert customer or EDU company name and any applicable name(s) doing business as]

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.

3. I am aware of fines and penalties which may be imposed under Ohio Revised Code Sections 2921.11, 2921.31, 4903.02, 4903.03, and 4903.99 for submitting false information.

Michael Sewell, CFO
Signature of Affiant & Title

Sworn and subscribed before me this 17 day of November,
2011 Month/Year

Jennifer L. Scheid
Signature of official administering oath

Jennifer Scheid
Print Name and Title Financial Statement Clerk

My commission expires on



Jennifer L. Scheid
Notary Public, State of Ohio
My Commission Expires 01-16-2016

MERCANTILE SELF DIRECT Ohio Premium Motor/Pump/VFD Incentive Application

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email the complete, signed application with all required documents to SelfDirect@duke-energy.com or fax to 513-419-5572.

Is this application: ☒ **NEW** (original) or ☐ **REVISED** (changes made to original application)

Building Type – Required (check one)

Data Centers	Full Service Restaurant	Office
Education/K-12	Healthcare	Public Assembly
Education Other	Industrial	Public Order/Safety
Elder Care/Nursing Home	Lodging	Religious Worship/Church
Food Sales/Grocery	Retail (Small Box)	Service
Fast Food Restaurant	Retail (Big Box)	Warehouse
Other:		

How did you hear about the program? (check one)

Duke Energy Representative	Web Site	Radio
Contractor / Vendor	Other _____	

Please check each box to indicate completion of the following program requirements:

☐ All sections of application	☒ Invoice with make, model number, quantity and equipment manufacturer	☒ Tax ID number for payee	☒ Customer/vendor agree to Terms and Conditions
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Customer Information

Customer/Business	Cincinnati Financial Corporation/Insurance/Finance	Contact	Jon Curtis
Phone	513-870-2571	Account Number	3300-3647-01-9
Street Address (Where incentive should be mailed)	PO Box 145496		
City	Cincinnati	State	Ohio
Zip Code	45250		
Installation Street Address	6200 South Gilmore Road		
City	Fairfield	State	Ohio
Zip Code	45014		
E-mail Address	Jon_Curtis@cinfin.com		

**Failure to provide the account number associated with the location where the installation took place will result in rejection of the application.*

Vendor Information

Vendor	Stoermer-Anderson & Peck Hannaford & Briggs	Contact	George Mayer
Phone	513-527-2300	Fax	513-527-2306
Street Address	3818 Red Bank Road		
City	Cincinnati	State	Ohio
Zip Code	45227		
E-mail Address	gam@stoermer-anderson.com		

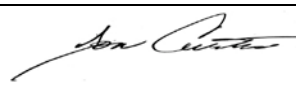
If Duke Energy has questions about this application, who should we contact? ☒ **Customer** ☐ **Vendor**

Payment Information

Who should receive incentive payment?	☒ Customer	☐ Vendor (Customer must sign below)
I hereby authorize payment of incentive directly to the vendor:	Customer Signature (written signature)	
	Date	
Provide Tax ID Number for Payee	Customer Tax ID #	31-054-2366
	Vendor Tax ID #	

Terms and Conditions

I have read and hereby agree to the Terms & Conditions and Program Requirements.

Customer Signature		Vendor Signature	
Date	8/24/11	Date	
Title	Supervisor - HVAC Ops.	Title	

Incentives are subject to change and may be discontinued at the sole discretion of Duke Energy. Equipment must be installed and operable to be eligible for incentives. As Federal Energy Policy Law changes, equipment efficiency requirements are subject to change.

Motor incentives will be removed from the Prescriptive Program effective March 31, 2011. To qualify for the current incentives, motors must be purchased by March 31, 2011 and installed by June 30, 2011. Applications must be received by September 30, 2011.

Certain motors will still be eligible for incentives using the custom program. Please refer to the Duke Energy Mercantile Self Direct website for further detail.

The Equipment below is (check one): ☒ New Equipment / New Construction
Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Motor											
Motor	Make/Model or Catalog #	Quantity	Type	RPM	Incentive	HP	Installed Nominal Efficiency*	Annual Operating Hrs (Minimum of 2000)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive
1-5 HP	Premium Reliance - Frame 182T	1	☒ OPEN TEFC	☐ 1200 ☒ 1800 ☐ 3600	\$5/HP	3HP	89.5%	8760Hrs	\$1,420.00	4/4/08	\$15.00
7.5-20 HP	Premium Baldor & Marathon, Frames 213T,254T,256T 265T	17 Various pls see list	☒ OPEN TEFC	☐ 1200 ☒ 1800 ☐ 3600	\$4/HP	245HP	91 to 93%	8760Hrs	\$366,600.00	4/4/08	\$980.00
25-100 HP	Premium , Baldor, & Reliance, Frames 326T,364T,365T,404T,405T	24 Various HP -pls see list	☒ OPEN TEFC	☐ 1200 ☒ 1800 ☐ 3600	\$2.50/HP	1685HP	93.6 to 95.4%	2920Hrs	\$1,176,652.00	4/4/08	\$4,212.00
125 – 250 HP	Premium Reliance, Frame 405T	4	☒ OPEN TEFC	☐ 1200 ☒ 1800 ☐ 3600	\$2/HP	500HP	95.4%	8760Hrs	\$66,289.00	4/4/08	\$1,000.00
* See page four for required efficiency levels for motors.											

*Incentive capped at 50% of project cost (equipment and external labor).

- Qualifying motors must be three-phase open drip (ODP) or totally enclosed fan cooled (TEFC) units with nominal speeds of 1200, 1800, or 3600 RPM.
- Efficiencies are to be full-load nominal efficiencies tested in accordance with IEE Standards 112, Method B. Please refer to attached table to determine qualifying efficiencies.
- Installed equipment must be new. Used, rebuilt or rewound equipment is **not** eligible.
- Motor shall be squirrel cage design and conform to NEMA Premium design A, B or C torque characteristics.
- Motor/pump load must be served by Duke Energy and installed in customer's facility.
- Replaced motors shall be disposed of or recycled (not to be resold or rewound).
- Motor(s) and pump(s) must operate a minimum of 2000 hours annually to be eligible.

The Equipment below is (check one): ☐ New Equipment / New Construction

Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

High Efficiency Pumps

Pump	Make/Model or Catalog #	Quantity	Incentive	Installed Nominal Efficiency* (pump curve)	Annual Operating Hrs (Minimum of 2000)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive
1.5 HP			\$61.00/PUMP	%	Hrs			
2 HP			\$87.50.00/PUMP	%	Hrs			
3 HP			\$87.50/PUMP	%	Hrs			
5 HP			\$85.00./PUMP	%	Hrs			
7.5 HP			\$124.50/PUMP	%	Hrs			
10 HP			\$82.50.00/PUMP	%	Hrs			
15 HP			\$145.00/PUMP	%	Hrs			
20 HP			\$200.00/PUMP	%	Hrs			

*** See on page four for required efficiency levels for pumps. Pump curves are required.**

*Incentive capped at 50% of project cost (equipment and external labor).

- Installed equipment must be new. Used, rebuilt or rewound equipment is **not** eligible.
- Motor/pump load must be served by Duke Energy and installed in customer's facility.
- Pump efficiency is based on the design point on the pump curve. Documentation of the pump curve is required to receive an incentive.
- The pump efficiency at the design point on the pump curve must meet nominal efficiencies as stated in table on page 4.
- Duplicative to the first bullet point.

The Equipment below is (check one): ☐ Retrofit
 Replacement of failed equipment or new construction is not eligible for incentives.

**Variable Frequency Drives (VFDs) – For Process Fluid Pumping Only
 (Retrofit* Application only)**

Process pumping does not include HVAC or swimming pool fluid pumping systems.

List Process Pumping Application

VFD**	Make/Model or Catalog #	Quantity	Incentive***	Annual Operating Hrs (Minimum of 2000)	Project Cost	Date Installed and Operable (mm/yy)	Total Incentive
5 HP			\$20.00/HP	Hrs			
7.5 HP			\$20.00/HP	Hrs			
10 HP			\$20.00/HP	Hrs			
15 HP			\$20.00/HP	Hrs			
20 HP			\$20.00/HP	Hrs			
25 HP			\$20.00/HP	Hrs			
30 HP			\$20.00/HP	Hrs			
40 HP			\$20.00/HP	Hrs			
50 HP			\$20.00/HP	Hrs			

***Retrofit only – incentives are only available for new VFDs installed on existing fluid process pump systems.**

**** VFDs over 50 HP and VFDs on new equipment are not eligible for prescriptive incentives, but may qualify through the custom program. Please refer to the custom webpage for guidance.**

*****Incentives are capped at 50% of project cost (equipment and external labor).**

- Installed equipment must be new. Used, rebuilt or rewound equipment is **not** eligible.
- Variable Frequency Drive Fans & Pumps qualifying equipment must have 2000 annual run hours or more.
- A 3% impedance reactor on the AC input to the VSD is recommended to prevent damage to the VSD due to overvoltage from power factor correction and should be properly sized by your supplier. A 5% reactor may be recommended if there is additional harmonic distortion on the AC input lines due to other plant-specific causes.
- VFDs on new equipment do not qualify under this program; but may qualify through the custom program. Please refer to the Custom website for guidance. Incentives will be paid for the installation of **NEW** VFDs on existing fan/pump systems and process equipment only.
- Replacement of existing VFDs does not qualify for incentives.
- VFDs installed on redundant pumps do not qualify.
- VFDs installed in newly constructed facilities do not qualify for incentives.
- VFD speed must be automatically controlled by differential pressure, flow, temperature, or other variable signal.
- Existing throttling devices including inlet vanes, bypass dampers, and throttling valves must be removed or permanently disabled.
- . Duplicative to the first bullet point.

The Equipment below is (check one): ☐ Retrofit
 Replacement of failed equipment or new construction is not eligible for incentives.

**Variable Frequency Drives (VFDs) – Applied to HVAC Fans Only
 (Retrofit* Application only)**

VFD HVAC Applications (please check one):

Supply Fan

Cooling Tower Fan

Return Fan

Exhaust Fan

VFD**	Make/Model or Catalog #	Quantity	Incentive***	Annual Operating Hrs (Minimum of 2000)	Project Cost	Date Installed and Operable (mm/yy)	Total Incentive
1.5 HP			\$50.00/HP	Hrs			
2 HP			\$50.00/HP	Hrs			
3 HP			\$50.00/HP	Hrs			
5 HP			\$50.00/HP	Hrs			
7.5 HP	Yaskawa E7CV B011	2	\$50.00/HP	8760Hrs	\$9,250.00	4/4/08	\$750.00
10 HP	Yaskawa E7CV B014 & E7E B014	1	\$50.00/HP	8760Hrs	\$7,837.00	4/4/08	\$500.00
15 HP	Yaskawa E7CV B021	2	\$50.00/HP	8760Hrs	\$31,000.00	4/4/08	\$1,500.00
20 HP	Yaskawa E7CV B027 & E7E B027	3	\$50.00/HP	8760Hrs	\$66,600.00	4/4/08	\$3,000.00
25 HP			\$50.00/HP	Hrs			
30 HP			\$50.00/HP	Hrs			
40 HP			\$50.00/HP	Hrs			
50 HP			\$50.00/HP	Hrs			

* Retrofit only – incentives are only available for new VFDs installed on existing HVAC fan systems.

**VFDs over 50 HP and VFD's on new equipment are not eligible for prescriptive incentives, but may qualify through the custom program.

***Incentives are capped at 50% of project cost (equipment and external labor).

- Installed equipment must be new. Used, rebuilt or rewound equipment is **not** eligible.
- Variable Frequency Drive Fans & Pumps qualifying equipment must have 2000 annual run hours or more.
- A 3% impedance reactor on the AC input to the VSD is recommended to prevent damage to the VSD due to overvoltage from power factor correction and should be properly sized by your supplier. A 5% reactor may be recommended if there is additional harmonic distortion on the AC input lines due to other plant-specific causes.
- VFDs on new equipment do not qualify under this program; but may qualify through the custom program. Please refer to the Custom website for guidance. Incentives will be paid for the installation of **NEW** VFDs on existing fan/pump systems and process equipment only.
- Replacement of existing VFDs does not qualify for incentives.
- VFDs installed on redundant pumps do not qualify.
- VFDs installed in newly constructed facilities do not qualify for incentives.
- VFD speed must be automatically controlled by differential pressure, flow, temperature, or other variable signal.
- Existing throttling devices including inlet vanes, bypass dampers, and throttling valves must be removed or permanently disabled.
- Duplicative to the first bullet point.

The Equipment below is (check one): ☐ Retrofit
 Replacement of failed equipment or new construction is not eligible for incentives.

**Variable Frequency Drives (VFDs) – Applied to HVAC Pumps Only
 (Retrofit* Application only)**

VFD HVAC Applications (please check one):

Chilled Water Pump		Condenser Pump		Hot Water Pump			
VFD**	Make/Model or Catalog #	Quantity	Incentive***	Annual Operating Hrs (Minimum of 2000)	Project Cost	Date Installed and Operable (mm/yy)	Total Incentive
1.5 HP			\$50.00/HP	Hrs			
2 HP			\$50.00/HP	Hrs			
3 HP			\$50.00/HP	Hrs			
5 HP			\$50.00/HP	Hrs			
7.5 HP			\$50.00/HP	Hrs			
10 HP			\$50.00/HP	Hrs			
15 HP			\$50.00/HP	Hrs			
20 HP			\$50.00/HP	Hrs			
25 HP			\$50.00/HP	Hrs			
30 HP			\$50.00/HP	Hrs			
40 HP			\$50.00/HP	Hrs			
50 HP	Yaskawa E7DV-B065	2	\$50.00/HP	4200Hrs	120,500.00	4/4/08	\$7,500.00

* Retrofit only – incentives are only available for new VFDs installed on existing HVAC pumps systems.
 **VFDs over 50 HP and VFDs on new equipment are not eligible for prescriptive incentives, but may qualify through the custom program. Please refer to the custom webpage for guidance.
 ***Incentives are capped at 50% of project cost (equipment and external labor).

- Installed equipment must be new. Used, rebuilt or rewound equipment is **not** eligible.
- Variable Frequency Drive Fans & Pumps qualifying equipment must have 2000 annual run hours or more.
- A 3% impedance reactor on the AC input to the VSD is recommended to prevent damage to the VSD due to overvoltage from power factor correction and should be properly sized by your supplier. A 5% reactor may be recommended if there is additional harmonic distortion on the AC input lines due to other plant-specific causes.
- VFDs on new equipment do not qualify under this program; but may qualify through the custom program. Please refer to the Custom website for guidance. Incentives will be paid for the installation of **NEW** VFDs on existing fan/pump systems and process equipment only.
- Replacement of existing VFDs does not qualify for incentives.
- VFDs installed on redundant pumps do not qualify.
- VFDs installed in newly constructed facilities do not qualify for incentives.
- VFD speed must be automatically controlled by differential pressure, flow, temperature, or other variable signal.
- Existing throttling devices including inlet vanes, bypass dampers, and throttling valves must be removed or permanently disabled.
- . Duplicative to the first bullet point.

Efficiencies for Premium Motor/Pump Measures

Nominal Efficiencies for “NEMA Premium” Induction Motors Rated 600 volts or less (random wound)

	Open Drip Proof			Totally Enclosed Fan-Cooled		
HP	1200 RPM	1800 RPM	3600 RPM	1200 RPM	1800 RPM	3600 RPM
1	82.5	85.5	77.0	82.5	85.5	77.0
1.5	86.5	86.5	84.0	87.5	86.5	84.0
2	87.5	86.5	85.5	88.5	86.5	85.5
3	88.5	89.5	85.5	89.5	89.5	86.5
5	89.5	89.5	86.5	89.5	89.5	88.5
7.5	90.2	91.0	88.5	91.0	91.7	89.5
10	91.7	91.7	89.5	91.0	91.7	90.2
15	91.7	93.0	90.2	91.7	92.4	91.0
20	92.4	93.0	91.0	91.7	93.0	91.0
25	93.0	93.6	91.7	93.0	93.6	91.7
30	93.6	94.1	91.7	93.0	93.6	91.7
40	94.1	94.1	92.4	94.1	94.1	92.4
50	94.1	94.5	93.0	94.1	94.5	93.0
60	94.5	95.0	93.6	94.5	95.0	93.6
75	94.5	95.0	93.6	94.5	95.4	93.6
100	95.0	95.4	93.6	95.0	95.4	94.1
125	95.0	95.4	94.1	95.0	95.4	95.0
150	95.4	95.8	94.1	95.8	95.8	95.0
200	95.4	95.8	95.0	95.8	96.2	95.4
250	95.4	95.8	95.0	95.8	96.2	95.8

Nominal Efficiencies for Pumps

HP	Efficiency
1.5	efficiency of 65% or more for system
2	efficiency of 65% or more for system
3	efficiency of 67% or more for system
5	efficiency of 70% or more for system
7.5	efficiency of 73% or more for system
10	efficiency of 75% or more for system
15	efficiency of 77% or more for system
20	efficiency of 77% or more for system

Program Requirements

Incentive Eligibility

- Incentives are only available to customers on a Duke Energy Ohio non-residential rate.
- Duke Energy Customers who purchase electric generation from an alternative supplier are eligible to participate.
- Incentive will not be paid until eligible equipment has been installed, is available to operate, and verification has been completed by Duke Energy staff as noted in the Term & Conditions stated below.
- Duke Energy reserves the right to revise incentive levels and/or qualifying efficiency levels at any time.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the Payment Information section on page 1 of this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount.
- Leased equipment is eligible for incentives providing the equipment meets the program requirements and the customer provides the required documentation noted on the Incentive Application Process page of this application.
- Any equipment which, either separately or as part of a project, has or will receive an incentive from any other Duke Energy program is ineligible.
- In no case will Duke Energy pay an incentive above the actual cost of the new equipment.
- Incentive recipient assumes all responsibilities for any tax consequences resulting from Duke Energy incentive payment.
- To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a 3rd party vendor. The 3rd party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the 3rd party vendor have signed a confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, as you will not be qualified to participate in the incentive program.

Terms and Conditions

I certify that this premise is served by Duke Energy (or an affiliate of Duke Energy), that the information provided herein is accurate and complete, and that I have purchased and installed the high efficiency equipment (indicated herein) for the business facility listed herein and not for resale. Attached is an itemized invoice for the indicated installed equipment. I understand that the proposed incentive payment from Duke Energy is subject to change based on verification and Duke Energy approval. I agree to Duke Energy verification of both the sales transaction and equipment installation which may include a site inspection from a Duke Energy representative or Duke Energy agent. I understand that I am not allowed to receive more than one incentive from Duke Energy on any piece of equipment. I also understand that my participation in the program may be taxable and that my company is solely responsible for paying all such taxes. I hereby agree to indemnify, hold harmless and release Duke Energy and its affiliates from any actions or claims in regards to the installation, operation and disposal of equipment (and related materials) covered herein including liability from an incidental or consequential damages. Duke Energy does not endorse any particular manufacturer, product or system design within these programs; does not expressly or implicitly warrant the performance of installed equipment (Contact your contractor for details regarding equipment warranties and is not liable for any damage caused by the installation of the equipment nor for any damage caused by the malfunction of the installed equipment.

Incentive Application Instructions

IMPORTANT NOTICE

Delays in processing incentive payments will occur if required documentation is not included with completed application(s).

1. Contact Duke Energy toll free at 866-380-9580 to confirm customer eligibility. Applications are available for download at www.duke-energy.com.
2. Review program and equipment requirements on the incentive application. (Page7)
3. Purchase and install eligible energy-efficient equipment.
4. Complete and submit application for equipment that was installed after 1/1/2008.
5. **The following items must be included to verify projects. If they are not included, it will delay payment of incentive.**
 - A. Itemized invoice for all equipment installed to include:
 - a. Equipment cost
 - b. Quantity per equipment type installed
 - c. Model # for each equipment type
 - d. Manufacturer's data sheet for each equipment model #.
 - B. **Make sure the account number provided on the cover page (customer information section) is associated with the location where the equipment was installed. If the account # does not match the address where the equipment was installed, the application will be rejected as ineligible.**
 - C. Provide required tax ID# for payee.
 - D. Customer must sign and date the application after reviewing the Terms and Conditions. If customer wishes to **assign payment of the incentive directly to the vendor**, the customer should circle the appropriate payee in the Payment Information section of the application and sign their name to authorize payment.
6. Duke Energy may require site verification of projects that have been self-installed, prior to payment of incentive.
8. Email the complete, signed application with all required documents to SelfDirect@duke-energy.com or fax to 513-419-5572.
8. A percentage of equipment installations will be site verified for quality assurance purposes. Once selected, a Duke Energy representative will contact the customer to arrange for the inspection. All incentive payments related to the project will be withheld until site verification is complete. There is no charge to the customer for these inspections.

Mercantile Self Direct Incentive Program Requirements for Vendor Participation

Program Overview

- Duke Energy offers it's eligible non-residential customers the opportunity to increase profitability through energy cost savings and contribute to a cleaner environment by participating in our Mercantile Self Direct Incentive Program.
- Under the Duke Energy Mercantile Self Direct Incentive Program, Vendor is defined as any third party who:
 - Promotes the sale and installation of the high efficiency equipment for the customer. The Vendor will ensure that the eligible equipment is installed and operating before submitting the application or assisting the customer in completing the application.
 - Is responsible for the product sale only and is not required to ensure installation of the eligible equipment.
- All license requirements, if any, are solely the Vendor's responsibility. Participating Vendors include equipment contractors, equipment Vendors, equipment manufacturers and distributors, energy service companies, etc. The typical Vendor role is to contact/solicit eligible customers building new or retrofitting existing facilities and encourage the installation of the energy-efficient equipment offered in Duke Energy's program.
- Incentives are paid directly to customers unless the customer assigns the incentive to the Vendor. The assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount. Incentives are taxable to the entity who receives the rebate check. Rebates greater than \$600 will be reported to the IRS unless documentation of tax exempt status is provided.
- Vendors may not represent to customers that Duke Energy endorses their specific products or services. Duke Energy does not endorse specific products, services, or companies – only energy-efficient technologies.
- Vendors may advise customers of their option to have Duke Energy make their rebate check(s) payable to the Vendor if the customer's rebate amount is being deducted from the total sale price in advance. The customer must complete and sign the Payment Release Authorization section of the Mercantile Self Direct Incentive Program Application.
- Vendors may use the words "Duke Energy's Mercantile Self Direct Incentive Program" in promotional materials or advertisements. Vendors may use the name Duke Energy in a text format to describe the Mercantile Self Direct Incentive Program, but are not permitted to use Duke Energy's logos.
- For Vendors who properly install the qualifying equipment, the equipment shall be installed and operating prior to an application being submitted. A percentage of each Vendor's installations will be subject to inspection by Duke Energy for verifying that the equipment is installed and operating. Vendors demonstrating high failure rates (based on a statistically significant sample) will have 100% of subsequent jobs inspected or may have their participation in the Mercantile Self Direct Incentive Program revoked by Duke Energy in it's sole discretion.
- Vendors shall provide customers with applicable equipment warranty information for all measures installed. Vendors shall provide the required documentation for customers to apply for the rebate (invoices with model numbers and quantities, specification sheets for installed equipment, etc.) and assist customers in filling out the application.
- Vendors shall comply with all applicable local, state, and federal laws and codes when performing installation and related functions.
- Duke Energy reserves the right to revoke a Vendor's participation in Mercantile Self Direct Incentive Program if, in Duke Energy's sole judgment, the Vendor fails to comply with the program's guidelines and requirements.
- Mercantile Self Direct Incentive Program offerings may be modified or terminated without prior notice. Check Duke Energy's Web site for current program status.

Vendors can sign up to be on Duke Energy's Web site as a participating Vendor and be added to Duke Energy's e-mail distribution by emailing the Vendor Participation Agreement (VPA) to SelfDirect@duke-energy.com or faxing to **513-419-5572**.

Guidelines for Vendor Activities

- Vendors shall sign and return the attached VPA to Duke Energy prior to soliciting customer participation or when submitting an application. Rebate payments will not be released to a Vendor unless a signed VPA is on file.
- Vendors shall not misrepresent the nature of their role in the program. In particular, Vendors shall not state or imply to customers, or any persons, that the Vendor is employed by or working on Duke Energy's behalf.

For more information, call **1-866.380.9580** or visit www.duke-energy.com.

Smart Saver Incentive Program

Technology	Responsible for sales and not installs*	Responsible for sales and Installation*	Technology	Responsible for sales and not installs*	Responsible for sales and Installation*
Lighting	☐	☐	Thermal Storage	☐	☐
Heating Ventilation & Cooling	☐	☐	Pumps/Motors/VFDs	☐	☐
Food Service	☐	☐	Chillers	☐	☐
Water Heating	☐	☐	Refrigeration	☐	☐
Process Equipment (air compressors, injection molding, etc.)	☐	☐	Window Film	☐	☐

* Check all that apply

Vendors who wish to be listed as a Mercantile Self Direct Incentive Program participating Vendor shall complete this form. A signed copy of this form must be on file at Duke Energy in order for the Vendor to receive incentive payments. Fax form to **513-419-5572** or email to SelfDirect@duke-energy.com.

I have read and understand the Mercantile Self Direct Incentive Program Requirements for Vendor Participation, and I agree to comply with all requirements set forth therein. By signing this agreement, I agree to provide my customers with information and documentation that is true and accurate to the best of my knowledge. I hereby represent and warrant that the Tax ID and Vendor Tax Status provided below are true and accurate. I agree that any confidential information concerning my customer, including but not limited to Duke Energy service account information, will be used for the sole purpose of facilitating the customer's participation in the Mercantile Self Direct Incentive Program. Further, I understand that I am responsible for making sure everyone working for me understands the requirements prior to soliciting customer participation.

Vendor Federal Tax ID Number	
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To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a third-party vendor. The third-party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the third-party vendor have signed confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application. As you will not be qualified to participate in the incentive program.

Vendor Tax Status	☐ Corporation	☐ Individual/Sole Proprietor	☐ Partnership	☐ Other
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Contact me via	☐ Phone	☐ E-Mail	☐ Mail	
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Company Name	
Mailing Address	
City, State, Zip	
Phone/Fax	
Primary E-mail Address	
Secondary E-mail Address	
Vendor Signature	
Title	
Print Name	
Date	

For more information, call 1-866-380-9580 or visit www.duke-energy.com.



MERCANTILE SELF DIRECT Ohio Chillers / Thermal Storage Incentive Application

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email the complete, signed application with all required documents to SelfDirect@duke-energy.com or fax to 513-419-5572

Is this application: ☒ **NEW** (original) or ☐ **REVISED** (changes made to original application)

Building Type – Required (check one)

☐ Data Centers	☐ Full Service Restaurant	☒ Office
☐ Education/K-12	☐ Healthcare	☐ Public Assembly
☐ Education Other	☐ Industrial	☐ Public Order/Safety
☐ Elder Care/Nursing Home	☐ Lodging	☐ Religious Worship/Church
☐ Food Sales/Grocery	☐ Retail (Small Box)	☐ Service
☐ Fast Food Restaurant	☐ Retail (Big Box)	☐ Warehouse
☐ Other:		

How did you hear about the program? (check one)

☒ Duke Energy Representative	☐ Web Site	☐ Radio
☐ Contractor / Vendor	☐ Other	

Please check each box to indicate completion of the following program requirements:

☒ All sections of application	☒ Invoice with make, model number, quantity and equipment manufacturer	☒ Tax ID number for payee	☒ Customer/vendor agree to Terms and Conditions
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Customer Information

Customer/Business	Cincinnati Financial Corporation/Insurance Financial	Contact	Jon Curtis	
Phone	513-870-2571	Account Number	3300-3647-01-9	
Street Address (Where incentive should be mailed)		PO Box 145496		
City	Cincinnati	State	Ohio	Zip Code 45250
Installation Street Address		6200 South Gilmore Road		
City	Fairfield	State	Ohio	Zip Code 45014
E-mail Address	Jon_Curtis@cinfin.com			

**Failure to provide the account number associated with the location where the installation took place will result in rejection of the application.*

Vendor Information

Vendor	Habegger (Peck, Hannaford & Briggs - PH&B)	Contact	Frank Werk - (PH&B)	
Phone	513-681-1200	Fax	513-681-0311	
Street Address		4673 Spring Grove Ave.		
City	Cincinnati	State	Ohio	Zip Code 45232
E-mail Address	fwerk@peckhannafordbriggs.com			

If Duke Energy has questions about this application, who should we contact? ☒ **Customer** ☐ **Vendor**

Payment Information

Who should receive incentive payment?	☒ Customer ☐ Vendor (Customer must sign below)	
I hereby authorize payment of incentive directly to the vendor:	Customer Signature (written signature)	
	Date	8/16/11
Provide Tax ID Number for Payee	Customer Tax ID #	31-054-2366
	Vendor Tax ID #	

Terms and Conditions

I have read and hereby agree to the Terms & Conditions and Program Requirements.

Customer Signature		Vendor Signature	
Date	8/16/11	Date	
Title	Supervisor - HVAC Ops.	Title	

Incentives are subject to change and may be discontinued at the sole discretion of Duke Energy. Equipment must be installed and operable to be eligible for incentives. As Federal Energy Policy Law changes, equipment must be installed and operable to be eligible for incentives.

The Equipment below is (check one): ☐ New Equipment / New Construction
 Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

See Page 4 of form for required efficiency levels and equipment eligibility

Air Cooled Chillers									
Make/Model # Scroll/Screw Type	# of Units	AHRI Tons/Unit	Full-load kW/ton*	Incentive \$/ton	IPLV kW/ton*	Incentive \$/ton	Building Type	Date Installed & Operable (mm/yy)	Total Incentive

* Chiller performance and IPLV must be tested under AHRI conditions - submit documentation of compliance

The Equipment below is (check one): ☒ New Equipment / New Construction
 Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

See Page 4 of form for required efficiency levels and equipment eligibility

Water Cooled Chillers										
Description	Make/Model #	# of Units	AHRI Tons/Unit	Full-load kW/ton*	Incentive \$/ton	IPLV kW/ton*	Incentive \$/ton	Building Type	Date Installed & Operable (mm/yy)	Total Incentive
☐ Screw/Scroll Chiller ☒ Centrifugal Chiller	Carrier Evergreen 19XRV6667456DF S64	3	675	.552kW	\$5.00	.353kW	\$12.00	Commercial Office	4/4/08	\$34,425.00
☐ Screw/Scroll Chiller ☐ Centrifugal Chiller										
☐ Screw/Scroll Chiller ☐ Centrifugal Chiller										

* Chiller performance and IPLV must be tested under AHRI conditions - submit documentation of compliance

Thermal Storage Incentives

The Equipment below is (check one): ☐ New Equipment / New Construction
 Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Thermal Storage System Specifications*

Manufacturer of Thermal Storage Equipment	
Type of Thermal Storage	☐ Chilled Water ☐ Ice Bank ☐ Ice Harvester
Model Number	
Controls Manufacturer	
Control Strategy	☐ Demand Limiting ☐ Maximum Cooling Shift
Number of Thermal Storage Units	
Partial or Full Storage	☐ Partial Storage ☐ Full Storage
Demand Shifted (kW)XX	
Storage Capacity (Ton Hours)	
Storage Capacity (Gallons If Applicable)	
Peak Cooling Load (Tons)	
Cooled Area (sq. ft.)	
Hours of Operations M-F	
Hours of Operations Sat	
Hours of Operations Sun	
Date Installed and Operable (mm/yy)	
Thermal Storage chiller Plant Description (Manufacturer, Tonnage, Ice Making kW/ton)	
Condenser Type	☐ Air Cooled ☐ Water Cooled
Premium cost for Thermal Storage (Dollars)	
Annual Electrical Operating Cost with Storage (Dollars)	
Annual Savings as a result of Thermal Storage (Dollars)	
Simple Payback including Incentive (Years)	
Total Incentive (\$190/kW shifted)	
Conventional System Specifications (For Comparison Purposes)	
Chiller Plant Description (Manufacturer, type, tonnage, AHRI kW/ton)	
Chiller Demand (kW)	
Annual Electrical Operating Cost with Conventional Cooling	

*Thermal Storage Units with a >1MW load shift are not eligible for incentives under the Prescriptive Program but can be considered for custom incentives. The Custom application and process document are located on the Self Direct websites.

** Average demand shifted during the peak demand timeframe of 10:00am to 6:00pm for summer months of May through September.

Equipment Requirements

Chillers Incentive Table & AHRI Rated Efficiency Requirements*

AIR COOLED CHILLERS – All Sizes

Total Incentive = Base + Additional

Scroll/Screw Type Chillers

Full load kW/ton – EER	Base Incentive \$/ton	Part Load IPLV kW/ton – EER	Additional Incentive \$/ton
1.230 - 9.80	\$4.00	1.130 - 10.60	
1.230 - 9.80	\$4.00	1.010 - 11.90	\$5.83
1.230 - 9.80	\$4.00	0.890 - 13.50	\$12.07
1.230 - 9.80	\$4.00	0.810 - 14.80	\$15.75
1.142 - 10.50	\$12.50	1.046 - 11.50	
1.142 - 10.50	\$12.50	0.925 - 13.00	\$6.00
1.142 - 10.50	\$12.50	0.879 - 13.70	\$8.35
1.142 - 10.50	\$12.50	0.674 - 17.80	\$18.60
1.046 - 11.50	\$15.00	0.961 - 12.50	
1.046 - 11.50	\$15.00	0.847 - 14.20	\$5.70
1.046 - 11.50	\$15.00	0.795 - 15.10	\$8.30
1.046 - 11.50	\$15.00	0.618 - 19.40	\$17.15

WATER COOLED CHILLERS – < 150 tons

Total Incentive = Base + Additional

Screw/Scroll Type Chiller

Full load kW/ton – EER	Base Incentive \$/ton	Part Load IPLV kW/ton – EER	Additional Incentive \$/ton
0.790 - 15.20	\$2.50	0.620 - 19.40	
0.790 - 15.20	\$2.50	0.590 - 20.30	\$1.50
0.790 - 15.20	\$2.50	0.550 - 21.80	\$3.50
0.790 - 15.20	\$2.50	0.510 - 23.50	\$5.50
0.790 - 15.20	\$2.50	0.470 - 25.50	\$7.50
0.710 - 16.90	\$7.50	0.630 - 19.00	
0.710 - 16.90	\$7.50	0.560 - 21.40	\$3.50
0.710 - 16.90	\$7.50	0.530 - 22.60	\$5.00
0.710 - 16.90	\$7.50	0.500 - 24.00	\$6.50
0.710 - 16.90	\$7.50	0.460 - 26.10	\$8.50
0.710 - 16.90	\$7.50	0.430 - 27.90	\$10.00
0.630 - 19.00	\$10.00	0.560 - 21.40	
0.630 - 19.00	\$10.00	0.500 - 24.00	\$3.00
0.630 - 19.00	\$10.00	0.470 - 25.50	\$4.50
0.630 - 19.00	\$10.00	0.440 - 27.30	\$6.00
0.630 - 19.00	\$10.00	0.410 - 29.30	\$7.50
0.630 - 19.00	\$10.00	0.380 - 31.60	\$9.00

Centrifugal Type Chiller

0.700 - 17.10	\$2.50	0.570 - 21.10	
0.700 - 17.10	\$2.50	0.530 - 22.60	\$2.00
0.700 - 17.10	\$2.50	0.500 - 24.00	\$3.50
0.700 - 17.10	\$2.50	0.420 - 28.60	\$7.50
0.630 - 19.00	\$7.50	0.600 - 20.00	
0.630 - 19.00	\$7.50	0.510 - 23.50	\$4.50
0.630 - 19.00	\$7.50	0.480 - 25.00	\$6.00
0.630 - 19.00	\$7.50	0.450 - 26.70	\$7.50
0.630 - 19.00	\$7.50	0.380 - 31.60	\$11.00
0.560 - 21.40	\$10.00	0.530 - 22.60	
0.560 - 21.40	\$10.00	0.460 - 26.10	\$3.50
0.560 - 21.40	\$10.00	0.430 - 27.90	\$5.00
0.560 - 21.40	\$10.00	0.400 - 30.00	\$6.50
0.560 - 21.40	\$10.00	0.340 - 35.30	\$9.50

*AHRI Standard 550/590

2003 Standard for Performance Rating of Water-Chilling Packages using the vapor compression cycle.

WATER COOLED CHILLERS – 150-300 tons

Total Incentive = Base + Additional

Screw/Scroll Type Chiller

Full load kW/ton – EER	Base Incentive \$/ton	Part Load IPLV kW/ton – EER	Additional Incentive \$/ton
0.720 – 16.70	\$2.50	0.570 – 21.10	
0.720 – 16.70	\$2.50	0.540 – 22.20	\$3.00
0.720 – 16.70	\$2.50	0.500 – 24.00	\$7.00
0.720 – 16.70	\$2.50	0.470 – 25.50	\$5.00
0.720 – 16.70	\$2.50	0.430 – 27.90	\$7.00
0.650 – 18.50	\$7.50	0.570 – 21.10	
0.650 – 18.50	\$7.50	0.510 – 23.50	\$3.00
0.650 – 18.50	\$7.50	0.480 – 25.00	\$4.50
0.650 – 18.50	\$7.50	0.450 – 26.70	\$6.00
0.650 – 18.50	\$7.50	0.420 – 28.60	\$7.50
0.650 – 18.50	\$7.50	0.390 – 30.80	\$9.00
0.570 – 21.10	\$10.00	0.510 – 23.50	
0.570 – 21.10	\$10.00	0.450 – 26.70	\$3.00
0.570 – 21.10	\$10.00	0.430 – 27.90	\$4.00
0.570 – 21.10	\$10.00	0.400 – 30.00	\$5.50
0.570 – 21.10	\$10.00	0.370 – 32.40	\$7.00
0.570 – 21.10	\$10.00	0.340 – 35.30	\$8.50

Centrifugal Type Chiller

0.630 – 19.00	\$2.50	0.510 – 23.50	
0.630 – 19.00	\$2.50	0.480 – 25.00	\$1.50
0.630 – 19.00	\$2.50	0.450 – 26.70	\$3.00
0.630 – 19.00	\$2.50	0.380 – 31.60	\$6.50
0.570 – 21.10	\$7.50	0.540 – 22.20	
0.570 – 21.10	\$7.50	0.460 – 26.10	\$4.00
0.570 – 21.10	\$7.50	0.430 – 27.90	\$5.50
0.570 – 21.10	\$7.50	0.400 – 30.00	\$7.00
0.570 – 21.10	\$7.50	0.340 – 35.30	\$10.00
0.510 – 23.50	\$10.00	0.480 – 25.00	
0.510 – 23.50	\$10.00	0.410 – 29.30	\$3.50
0.510 – 23.50	\$10.00	0.390 – 30.80	\$4.50
0.510 – 23.50	\$10.00	0.360 – 33.30	\$6.00
0.510 – 23.50	\$10.00	0.300 – 40.00	\$9.00

*AHRI Standard 550/590

2003 Standard for Performance Rating of Water-Chilling Packages using the vapor compression cycle.

WATER COOLED CHILLERS – >300 tons

Total Incentive = Base + Additional

Screw/Scroll Type Chiller

Full load kW/ton – EER	Base Incentive \$/ton	Part Load IPLV kW/ton – EER	Additional Incentive \$/ton
0.640 – 18.75	\$2.50	0.510 – 23.50	
0.640 – 18.75	\$2.50	0.480 – 25.00	\$1.50
0.640 – 18.75	\$2.50	0.450 – 26.70	\$3.00
0.640 – 18.75	\$2.50	0.420 – 28.60	\$4.50
0.640 – 18.75	\$2.50	0.380 – 31.60	\$6.50
0.580 – 20.70	\$7.50	0.510 – 23.50	
0.580 – 20.70	\$7.50	0.450 – 26.70	\$3.00
0.580 – 20.70	\$7.50	0.430 – 27.90	\$4.00
0.580 – 20.70	\$7.50	0.400 – 30.00	\$5.50
0.580 – 20.70	\$7.50	0.370 – 32.40	\$7.00
0.580 – 20.70	\$7.50	0.350 – 34.30	\$8.00
0.510 – 23.50	\$10.00	0.460 – 26.10	
0.510 – 23.50	\$10.00	0.400 – 30.00	\$3.00
0.510 – 23.50	\$10.00	0.380 – 31.60	\$4.00
0.510 – 23.50	\$10.00	0.360 – 33.30	\$5.00
0.510 – 23.50	\$10.00	0.330 – 36.40	\$6.50
0.510 – 23.50	\$10.00	0.310 – 38.70	\$7.50

Centrifugal Type Chiller

0.58 – 20.7	\$5.00	0.47 – 25.5	
0.58 – 20.7	\$5.00	0.44 – 27.3	\$3.00
0.58 – 20.7	\$5.00	0.41 – 29.3	\$6.00
0.58 – 20.7	\$5.00	0.35 – 34.3	\$12.00
0.52 – 23.1	\$15.00	0.49 – 24.5	
0.52 – 23.1	\$15.00	0.42 – 28.6	\$7.00
0.52 – 23.1	\$15.00	0.39 – 30.8	\$10.00
0.52 – 23.1	\$15.00	0.37 – 32.4	\$12.00
0.52 – 23.1	\$15.00	0.31 – 38.7	\$18.00
0.46 – 26.1	\$20.00	0.44 – 27.3	
0.46 – 26.1	\$20.00	0.37 – 32.4	\$7.00
0.46 – 26.1	\$20.00	0.35 – 34.3	\$9.00
0.46 – 26.1	\$20.00	0.33 – 36.4	\$11.00
0.46 – 26.1	\$20.00	0.28 – 42.9	\$16.00

*AHRI Standard 550/590

2003 Standard for Performance Rating of Water-Chilling Packages using the vapor compression cycle.

Thermal Storage Incentives

	Incentive
THERMAL STORAGE UNIT	\$95/kW shifted

Program Requirements

Equipment Eligibility

- Duke Energy will use the AHRI database for verifying equipment efficiencies for all the chillers. If the equipment or matched set is not in the AHRI database, the manufacturer's technical fact sheets must be provided showing the efficiency level tested under AHRI conditions as described in AHRI standard 550/590. Equipment capacity (size) and efficiency must be based on AHRI design conditions. Full load efficiency rating (FL) and Integrated Part load Value (IPLV) must be provided for all chillers.
- Incentives for chillers will be paid based on the AHRI tons per unit.
- EER/COP and IPLV values shall include all connected loads, such as compressors, condenser fans, and control kW. Chiller components, such as motors and VFDs, are incented as part of the chiller package and are not independently eligible for prescriptive incentives during a chiller replacement
- Chiller incentives are only available for HVAC space cooling applications. All equipment installed must serve as a primary source of cooling for the facility. Industrial process cooling may qualify for a custom incentive.
- Chillers purchased and installed for backup or redundant systems are not eligible.
- Thermal Storage Units with a >1MW load shift are not eligible for incentives under the Prescriptive Program but can be considered for custom incentives.
- All equipment must be new to be eligible for incentives. Used equipment is **not** eligible for incentives.

Incentive Eligibility

- Incentives are only available to customers on a Duke Energy Ohio non-residential rate.
- Duke Energy Customers who purchase electric generation from an alternative supplier are eligible to participate.
- Incentive will not be paid until eligible equipment has been installed, is available to operate, and verification has been completed by Duke Energy staff as noted in the Term & Conditions stated below.
- Duke Energy reserves the right to revise incentive levels and/or qualifying efficiency levels at any time.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the Payment Information section on page 1 of this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount.
- Leased equipment is eligible for incentives providing the equipment meets the program requirements and the customer provides the required documentation noted on the Incentive Application Process page of this application.
- Any equipment which, either separately or as part of a project, has or will receive an incentive from any other Duke Energy program is ineligible.
- In no case will Duke Energy pay an incentive above the actual cost of the new equipment.
- Incentive recipient assumes all responsibilities for any tax consequences resulting from Duke Energy incentive payment.
- To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a 3rd party vendor. The 3rd party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the 3rd party vendor have signed a confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, as you will not be qualified to participate in the incentive program.

Terms and Conditions

I certify that this premise is served by Duke Energy (or an affiliate of Duke Energy), that the information provided herein is accurate and complete, and that I have purchased and installed the high efficiency equipment (indicated herein) for the business facility listed herein and not for resale. Attached is an itemized invoice for the indicated installed equipment. I understand that the proposed incentive payment from Duke Energy is subject to change based on verification and Duke Energy approval. I agree to Duke Energy verification of both the sales transaction and equipment installation which may include a site inspection from a Duke Energy representative or Duke Energy agent. I understand that I am not allowed to receive more than one incentive from Duke Energy on any piece of equipment. I also understand that my participation in the program may be taxable and that my company is solely responsible for paying all such taxes. I hereby agree to indemnify, hold harmless and release Duke Energy and it's affiliates from any actions or claims in regards to the installation, operation and disposal of equipment (and related materials) covered herein including liability from an incidental or consequential damages. Duke Energy does not endorse any particular manufacturer, product or system design within these programs; does not expressly or implicitly warrant the performance of installed equipment (Contact your contractor for details regarding equipment warranties), and is not liable for any damage caused by the installation of the equipment nor for any damage caused by the malfunction of the installed equipment.

Incentive Application Instructions

IMPORTANT NOTICE

Delays in processing incentive payments will occur if required documentation is not included with completed application(s).

1. Contact Duke Energy toll free at 866-380-9580 to confirm customer eligibility. Applications are available for download at www.duke-energy.com.
2. Review program and equipment requirements on the incentive application. (Page7)
3. Purchase and install eligible energy-efficient equipment.
4. Complete and submit application for equipment that was installed after 1/1/2008.
5. **The following items must be included to verify projects. If they are not included, it will delay payment of incentive.**
 - A. Itemized invoice for all equipment installed to include:
 - a. Equipment cost
 - b. Quantity per equipment type installed
 - c. Model # for each equipment type
 - d. Manufacturer's data sheet for each equipment model #.
 - B. **Make sure the account number provided on the cover page (customer information section) is associated with the location where the equipment was installed. If the account # does not match the address where the equipment was installed, the application will be rejected as ineligible.**
 - C. Provide required tax ID# for payee.
 - D. Customer must sign and date the application after reviewing the Terms and Conditions. If customer wishes to **assign payment of the incentive directly to the vendor**, the customer should circle the appropriate payee in the Payment Information section of the application and sign their name to authorize payment.
6. Duke Energy may require site verification of projects that have been self-installed, prior to payment of incentive.
8. Email the complete, signed application with all required documents to SelfDirect@duke-energy.com or fax to 513-419-5572.
8. A percentage of equipment installations will be site verified for quality assurance purposes. Once selected, a Duke Energy representative will contact the customer to arrange for the inspection. All incentive payments related to the project will be withheld until site verification is complete. There is no charge to the customer for these inspections.

Mercantile Self Direct Incentive Program Requirements for Vendor Participation

Program Overview

- Duke Energy offers its eligible non-residential customers the opportunity to increase profitability through energy cost savings and contribute to a cleaner environment by participating in our Mercantile Self Direct Incentive Program.
- Under the Duke Energy Mercantile Self Direct Incentive Program, Vendor is defined as any third party who:
 - Promotes the sale and installation of the high efficiency equipment for the customer. The Vendor will ensure that the eligible equipment is installed and operating before submitting the application or assisting the customer in completing the application.
 - Is responsible for the product sale only and is not required to ensure installation of the eligible equipment.
- All license requirements, if any, are solely the Vendor's responsibility. Participating Vendors include equipment contractors, equipment Vendors, equipment manufacturers and distributors, energy service companies, etc. The typical Vendor role is to contact/solicit eligible customers building new or retrofitting existing facilities and encourage the installation of the energy-efficient equipment offered in Duke Energy's program.
- Incentives are paid directly to customers unless the customer assigns the incentive to the Vendor. The assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount. Incentives are taxable to the entity who receives the rebate check. Rebates greater than \$600 will be reported to the IRS unless documentation of tax exempt status is provided.
- Vendors can sign up to be on Duke Energy's Web site as a participating Vendor and be added to Duke Energy's e-mail distribution by faxing the Vendor Participation Agreement (VPA) to **513-419-5572** or emailing to **SelfDirect@duke-energy.com**.
- Vendors may not represent to customers that Duke Energy endorses their specific products or services. Duke Energy does not endorse specific products, services, or companies – only energy-efficient technologies.
- Vendors may advise customers of their option to have Duke Energy make their rebate check(s) payable to the Vendor if the customer's rebate amount is being deducted from the total sale price in advance. The customer must complete and sign the Payment Release Authorization section of the Mercantile Self Direct Incentive Program Application.
- Vendors may use the words "Duke Energy's Mercantile Self Direct Incentive Program" in promotional materials or advertisements. Vendors may use the name Duke Energy in a text format to describe the Mercantile Self Direct Incentive Program, but are not permitted to use Duke Energy's logos.
- For Vendors who properly install the qualifying equipment, the equipment shall be installed and operating prior to an application being submitted. A percentage of each Vendor's installations will be subject to inspection by Duke Energy for verifying that the equipment is installed and operating. Vendors demonstrating high failure rates (based on a statistically significant sample) will have 100% of subsequent jobs inspected or may have their participation in the Mercantile Self Direct Incentive Program revoked by Duke Energy in its sole discretion.
- Vendors shall provide customers with applicable equipment warranty information for all measures installed. Vendors shall provide the required documentation for customers to apply for the rebate (invoices with model numbers and quantities, specification sheets for installed equipment, etc.) and assist customers in filling out the application.
- Vendors shall comply with all applicable local, state, and federal laws and codes when performing installation and related functions.

Guidelines for Vendor Activities

- Vendors shall sign and return the attached VPA to Duke Energy prior to soliciting customer participation or when submitting an application. Rebate payments will not be released to a Vendor unless a signed VPA is on file.

Vendors shall not misrepresent the nature of their role in the program. In particular, Vendors shall not state or imply to customers, or any persons, that the Vendor is employed by or working on Duke Energy's behalf.

- Duke Energy reserves the right to revoke a Vendor's participation in Mercantile Self Direct Incentive Program if, in Duke Energy's sole judgment, the Vendor fails to comply with the program's guidelines and requirements.
- Mercantile Self Direct Incentive Program offerings may be modified or terminated without prior notice. Check Duke Energy's Web site for current program status.

For more information, call **1-866.380.9580** or visit **www.duke-energy.com**.



Smart Saver Incentive Program

Technology	Responsible for sales and not installs*	Responsible for sales and Installation*	Technology	Responsible for sales and not installs*	Responsible for sales and Installation*
Lighting	☐	☐	Thermal Storage	☐	☐
Heating Ventilation & Cooling	☐	☐	Pumps/Motors/VFD's	☐	☐
Food Service	☐	☐	Chillers	☐	☐
Water Heating	☐	☐	Refrigeration	☐	☐
Process Equipment (air compressors, injection molding, etc.)	☐	☐	Window Film	☐	☐

* Check all that apply

Vendors who wish to be listed as a Mercantile Self Direct Incentive Program participating Vendor shall complete this form. A signed copy of this form must be on file at Duke Energy in order for the Vendor to receive incentive payments. Fax form to **513-419-5572** or email to SelfDirect@duke-energy.com.

I have read and understand the Mercantile Self Direct Incentive Program Requirements for Vendor Participation, and I agree to comply with all requirements set forth therein. By signing this agreement, I agree to provide my customers with information and documentation that is true and accurate to the best of my knowledge. I hereby represent and warrant that the Tax ID and Vendor Tax Status provided below are true and accurate. I agree that any confidential information concerning my customer, including but not limited to Duke Energy service account information, will be used for the sole purpose of facilitating the customer's participation in the Mercantile Self Direct Incentive Program. Further, I understand that I am responsible for making sure everyone working for me understands the requirements prior to soliciting customer participation.

Vendor Federal Tax ID Number	
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To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a third-party vendor. The third-party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the third-party vendor have signed confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application. As you will not be qualified to participate in the incentive program.

Vendor Tax Status	☐ Corporation	☐ Individual/Sole Proprietor	☐ Partnership	☐ Other
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Contact me via	☐ Phone	☐ E-Mail	☐ Mail	
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Company Name	
Mailing Address	
City, State, Zip	
Phone/Fax	
Primary E-mail Address	
Secondary E-mail Address	
Vendor Signature	
Title	
Print Name	
Date	

For more information, call 1-866-380-9580 or visit www.duke-energy.com.

MERCANTILE SELF DIRECT Ohio Heating / Cooling Equipment Incentive Application

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email the complete, signed application with all required documents to SelfDirect@duke-energy.com, or fax to 513-419-5572

Is this application: ☒ **NEW** (original) or ☐ **REVISED** (changes made to original application)

Building Type – Required (check one)		
☐ Data Centers	☐ Full Service Restaurant	☒ Office
☐ Education/K-12	☐ Healthcare	☐ Public Assembly
☐ Education Other	☐ Industrial	☐ Public Order/Safety
☐ Elder Care/Nursing Home	☐ Lodging	☐ Religious Worship/Church
☐ Food Sales/Grocery	☐ Retail (Small Box)	☐ Service
☐ Fast Food Restaurant	☐ Retail (Big Box)	☐ Warehouse
☐ Other:		
How did you hear about the program? (check one)		
☒ Duke Energy Representative	☐ Web Site	☐ Radio
☐ Contractor / Vendor	☐ Other	

Please check each box to indicate completion of the following program requirements:

☐ All sections of application	☒ Invoice with make, model number, quantity and equipment manufacturer	☒ Tax ID number for payee	☒ Customer/vendor agree to Terms and Conditions
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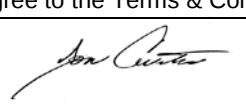
Customer Information					
Customer/Business	The Cincinnati Financial Corporation		Contact	Jon Curtis	
Phone	513-870-2571		Account Number	53800747-02-0	
Street Address (Where incentive should be mailed)			PO Box 145496		
City	Cincinnati	State	Ohio	Zip Code	45250
Installation Street Address		8685 Winton Road			
City	Cincinnati	State	Ohio	Zip Code	45231
E-mail Address	Jon_Curti@cinfin.com				

**Failure to provide the account number associated with the location where the installation took place will result in rejection of the application.*

Vendor Information					
Vendor	Feldkamp Enterprises, Inc.		Contact	Kevin Bush	
Phone	513-347-4500		Fax	513-347-4506	
Street Address			3642 Muddy Creek		
City	Cincinnati	State	Ohio	Zip Code	45238
E-mail Address	kevin@feldkamphvac.com				

If Duke Energy has questions about this application, who should we contact? ☒ Customer ☐ Vendor

Payment Information		
Who should receive incentive payment?	☒ Customer ☐ Vendor (Customer must sign below)	
I hereby authorize payment of incentive directly to the vendor:	Customer Signature (written signature)	
	Date	
Provide Tax ID Number for Payee	Customer Tax ID #	
	31-0542366	
	Vendor Tax ID #	

Terms and Conditions			
I have read and hereby agree to the Terms & Conditions and Program Requirements.			
Customer Signature		Vendor Signature	
Date	8/19/2011	Date	
Title	Supervisor - HVAC Ops.	Title	

Incentives are subject to change and may be discontinued at the sole discretion of Duke Energy. Equipment must be installed and operable to be eligible for incentives. As Federal Energy Policy Law changes, equipment efficiency requirements are subject to change.

The Equipment below is (check one): ☒ New Equipment / New Construction

Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Central Air Unit Incentives (Rooftop and Unitary AC and HEAT PUMPS*)

Description	Make/Model # (for split system, supply both the indoor and outdoor coil numbers)	# of Units	Tons Per Unit	Incentives per Ton**	Installed AHRI Efficiency Rating (mark one)	AHRI Reference Number (required)***	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive
AAON Rooftop Unit	RN-006-3-0-EB09-329	2	6	\$12.50	☐ SEER/EER** ☒	3945142	6570	\$18,949.80	12/8/2009	\$75.00
AAON Rooftop Unit	RN-008-3-0-EB09-3F9	1	8	\$12.50	☐ SEER/EER** ☒	3931608	6570	\$12,633.20	12/8/2009	\$100.00
AAON Rooftop Unit	RN-010-3-0-EA09-3F9	1	10	\$12.50	☐ SEER/EER** ☒	3931632	6570	\$15,791.50	12/8/2009	\$125.00
AAON Rooftop Unit	RN-013-3-0-EA09-3F9	2	13	\$20.00	☐ SEER/EER** ☒	4676107	6570	\$41,057.50	12/8/2009	\$520.00
AAON Rooftop Unit	RN-015-3-0-EB09-3F9	3	15	\$20.00	☐ SEER/EER** ☒	4165277	6570	\$71,061.75	12/8/2009	\$900.00

** Incentive capped at 50% of the equipment cost.

Cooling Incentive Table and AHRI Rated Efficiency Requirements*

Description	Size Range	Minimum AHRI Efficiency	Incentive
Packaged Terminal Air Conditioning			
A	All sizes	See ** below	\$10/unit
Unitary and Rooftop Air Conditioning			
B	<65,000 BTUH (1 Phase)	14.5 SEER/split system; 14 SEER/single package system	\$12.50/ton
C	<65,000 BTUH (3 Phase)	12.0 EER/split system; 11 EER/single package system	\$10/ton
D	65,000-135,000 BTUH	11.0 EER	\$12.50/ton
E	136,000-240,000 BTUH	11.0 EER	\$20/ton
F	241,000-760,000 BTUH	10.0 EER	\$10/ton
G	>760,000 BTUH	10.0 EER	\$15/ton
Unitary and Rooftop Heat Pump – only Air-to-Air Heat Pump units qualify			
H	<65,000 BTUH (1 Phase)	14.5 SEER/split system; 14 SEER/single package system	\$12.50/ton
I	<65,000 BTUH (3 Phase)	12.0 EER split system; 11 EER/single package system	\$10/ton
J	65,000-135,000 BTUH	11.0 EER	\$17.50/ton
K	136,000-240,000 BTUH	10.0 EER	\$17.50/ton
L	>241,000 BTUH	10.0 EER	\$17.50/ton

** PTAC Minimum Efficiency (EER) calculation: $12.8 \text{ EER} - (.213 \times (\text{BTUH}/1000))$

*** Incentive capped at 50% of the equipment cost.

- Duke Energy requires an AHRI reference # or documentation from the AHRI Manual to verify the required efficiency level for all central air systems. If the equipment or matched set is not in the AHRI manual, the manufacturer's technical fact sheets must be provided showing the efficiency level tested under AHRI conditions. Equipment capacity (size) and efficiency must be based on AHRI design conditions.
- For split systems, the indoor coil and condenser must be a matched set to be eligible for incentives.
- Cooling system(s) must operate >1,500 hours annually to be eligible.
- Incentives are only available for Air-to-Air HP units. Ground Source and Water Source Heat Pumps are not eligible. Incentives may be available under the custom program. See custom application on the Duke Energy Mercantile Self Direct website for application and equipment requirements.**
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ New Equipment / New Construction
 Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Energy Star Window / Sleeve / Room AC Incentives

Description*	Make/Model #	Size Range Btu/hr	Incentive per Unit*	Quantity	EER	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive

** Incentive capped at 50% of the equipment cost.

Energy Star Window / Sleeve / Room Incentive Table

Size Range	EER	Incentive	EER	Incentive	EER	Incentive
<8,000 BTU/hr	10.7	\$12.50	11.2	\$17.50	11.6	\$20
8,000 – 13,999 BTU/hr	10.8	\$12.50	11.3	\$17.50	11.8	\$20
14,000 BTU – 19,999 BTU/hr	10.7	\$25	11.2	\$37.50	11.6	\$40
>=20,000 Btu/hr	9.4	\$25	9.8	\$37.50	10.2	\$40

- Cooling system(s) must operate >1,500 hours annually to be eligible.
- An equipment data sheet is required stating that the unit is Energy Star rated and providing the EER.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ New Equipment / New Construction

Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Air Source Heat Pump Water Heater Incentives***

Description*	Make/Model #	Quantity	Size Range	Incentive per Tank*	Installed COP Efficiency*	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive**
			MBH						
			MBH						
			MBH						

** Incentive capped at 50% of the equipment cost.

Air Source Heat Pump Water Heater Incentive Table

Description	Size Range	Minimum COP Efficiency	Incentive*
Air source Heat Pump Water Heater			
Q	10-50 MBH	3.0	\$1,000/unit
R	51-100 MBH	3.0	\$1,750/unit
S	101-300 MBH	3.0	\$2,500/unit
T	301v-500 MBH	3.0	\$3,500/unit
U	>500 MBH	3.0	\$4,500/unit

* Incentive capped at 50% of the equipment cost.

- Incentives are only available for Air Source Heat Pump water heaters.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.
- An equipment data sheet is required stating that the COP.

The Equipment below is (check one): ☐ New Equipment / New Construction

Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

High Efficiency Commercial Electric Water Heater Incentives***

Description*	Make/Model #	Quantity	Size Range	Incentive per Tank*	Installed Energy Factor*	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive**
			MBH						
			MBH						
			MBH						

** Incentive capped at 50% of the equipment cost.

High – Efficiency Commercial Electric Water Heater Incentive Table

Description	Size Range	Minimum Energy Factor (EF)	Incentive*
V	All	0.93	\$10/unit

* Maximum incentive cannot exceed 50% of the total equipment cost.

- Energy Factor (EF) must be a minimum of 0.93 to qualify.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.
- An equipment data sheet is required stating that the EF.

The Equipment below is (check one): ☐ Retrofit (installed on existing equipment)
 New construction or replacement of failed equipment must apply for Self Direct Custom program.

Window Film Incentives

Item Number (Model #)	SHGC*	Square Feet Installed	Incentive per Square Foot	Direction Window Faces	Number of Windows	Date Installed (mm/yy)	Project Cost	Total Incentive**
			\$.50/sq.ft	☐ East ☐ West ☐ South				
			\$.50/sq.ft	☐ East ☐ West ☐ South				
			\$.50/sq.ft	☐ East ☐ West ☐ South				

** Incentive is capped at a maximum of 50% of the project cost (equipment and external labor).

Window Film Incentive

Description	Minimum Efficiency	Incentive*
Window Film	SHGC or 0.40 or less or a shading coefficient of 0.45 or less	\$.50/square ft.

*Incentive is capped at of 50% of the project cost (material and external labor).

- Window Film must be installed according to the manufacturer's instructions on south, east or west facing windows; have a solar heat gain coefficient (SHGC) of 0.40 or less, or a shading coefficient of 0.45 or less and cover the entire window aperture.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ Retrofit (installed on existing equipment)
 New construction or replacement of failed equipment must apply for Self Direct Custom program.

Setback/Programmable Thermostat Incentives (Retrofit only)

Make/Model #	Quantity	Incentive per Unit*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive

* Incentive capped at 50% of the equipment cost.

Setback/Programmable Thermostat Incentives (Retrofit only)

Description	Incentive
Setback/Programmable Thermostat	\$25/thermostat*

- Programmable Thermostats must replace existing standard thermostats – Incentives for new construction are not applicable.
- Incentives for Programmable Thermostats cannot exceed 50% of the cost of the thermostat.
- Thermostat(s) shall be installed according to manufacturer's specifications and comply with manufacturer's warranty requirements. Thermostat(s) shall have a program memory retention capability or battery back-up (minimum 2 days), with warning indicator for battery replacement. Thermostat(s) shall be capable of automatic variation of the start of daily-warm-up time depending on indoor and outdoor temperature variations.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ Retrofit (installed on existing equipment)
 New construction or replacement of failed equipment must apply for Self Direct Custom program.

Guestroom Energy Management Controls (Retrofit only)						
Make/Model #	Please indicate whether room is heated by Natural Gas (G) or Electric (E)? (please circle)	Quantity	Incentive per Room*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive
	E or G					
	E or G					
	E or G					

* Incentive capped at 50% of the equipment cost.

Guestroom Energy Management Controls (Retrofit only)	
Description	Incentive per Room
Guestroom Energy Management Controls for rooms heated with Electric	\$40
Guestroom Energy Management Controls for rooms heated with Gas	\$15

- Incentives are available for sensors that control HVAC units for individual hotel rooms.
- Sensors controlled by a front desk system are not eligible.
- Sensors must be controlled by automatic occupancy detectors.
- During unoccupied periods, the default setting for controlled units should differ by at least 8 degrees from the operating set point.
- The incentive is per guest room controlled, not per sensor; for multi-room suites the incentive is available per room controlled, if a sensor is installed in each room.
- Replacement or upgrades of existing occupancy-based controls are not eligible for a prescriptive incentive.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

Program Requirements

Incentive Eligibility

- Incentives are only available to customers on a Duke Energy Ohio non-residential rate.
- Duke Energy Customers who purchase electric generation from an alternative supplier are eligible to participate.
- Incentive will not be paid until eligible equipment has been installed, is available to operate, and verification has been completed by Duke Energy staff as noted in the Term & Conditions stated below.
- Duke Energy reserves the right to revise incentive levels and/or qualifying efficiency levels at any time.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the Payment Information section on page 1 of this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reproduce the purchase price paid for the equipment by an equivalent amount.
- Leased equipment is eligible for incentives providing the equipment meets the program requirements and the customer provides the required documentation noted on the Incentive Application Process page of this application.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the appropriate places on this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount.
- Any equipment which, either separately or as part of a project, has or will receive an incentive from any other Duke Energy program is ineligible.
- In no case will Duke Energy pay an incentive above the actual cost of the new equipment.
- Incentive recipient assumes all responsibilities for any tax consequences resulting from Duke Energy incentive payment.
- To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a 3rd party vendor. The 3rd party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the 3rd party vendor have signed a confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, as you will not be qualified to participate in the incentive program.

Terms and Conditions

I certify that this premise is served by Duke Energy (or an affiliate of Duke Energy), that the information provided herein is accurate and complete, and that I have purchased and installed the high efficiency equipment (indicated herein) for the business facility listed herein and not for resale. Attached is an itemized invoice for the indicated installed equipment. I understand that the proposed incentive payment from Duke Energy is subject to change based on verification and Duke Energy approval. I agree to Duke Energy verification of both the sales transaction and equipment installation which may include a site inspection from a Duke Energy representative or Duke Energy agent. I understand that I am not allowed to receive more than one incentive from Duke Energy on any piece of equipment. I also understand that my participation in the program may be taxable and that my company is solely responsible for paying all such taxes. I hereby agree to indemnify, hold harmless and release Duke Energy and its affiliates from any actions or claims in regards to the installation, operation and disposal of equipment (and related materials) covered herein including liability from an incidental or consequential damages. Duke Energy does not endorse any particular manufacturer, product or system design within these programs; does not expressly or implicitly warrant the performance of installed equipment (Contact your contractor for details regarding equipment warranties) and is not liable for any damage caused by the installation of the equipment nor for any damage caused by the malfunction of the installed equipment.

Incentive Application Instructions

IMPORTANT NOTICE

Delays in processing incentive payments will occur if required documentation is not included with completed application(s).

1. Contact Duke Energy toll free at 866-380-9580 to confirm customer eligibility. Applications are available for download at www.duke-energy.com.
2. Review program and equipment requirements on the incentive application. (Page7)
3. Purchase and install eligible energy-efficient equipment.
4. Complete and submit application for equipment that was installed after 1/1/2008.
5. **The following items must be included to verify projects. If they are not included, it will delay payment of incentive.**
 - A. Itemized invoice for all equipment installed to include:
 - a. Equipment cost
 - b. Quantity per equipment type installed
 - c. Model # for each equipment type
 - d. Manufacturer's data sheet for each equipment model #.
 - B. **Make sure the account number provided on the cover page (customer information section) is associated with the location where the equipment was installed. If the account # does not match the address where the equipment was installed, the application will be rejected as ineligible.**
 - C. Provide required tax ID# for payee.
 - D. Customer must sign and date the application after reviewing the Terms and Conditions. If customer wishes to **assign payment of the incentive directly to the vendor**, the customer should circle the appropriate payee in the Payment Information section of the application and sign their name to authorize payment.
6. Duke Energy may require site verification of projects that have been self-installed, prior to payment of incentive.
8. Email the complete, signed application with all required documents to SelfDirect@duke-energy.com or fax to 513-419-5572.
8. A percentage of equipment installations will be site verified for quality assurance purposes. Once selected, a Duke Energy representative will contact the customer to arrange for the inspection. All incentive payments related to the project will be withheld until site verification is complete. There is no charge to the customer for these inspections.

Mercantile Self Direct Incentive Program Requirements for Vendor Participation

Program Overview

- Duke Energy offers its eligible non-residential customers the opportunity to increase profitability through energy cost savings and contribute to a cleaner environment by participating in our Mercantile Self Direct Incentive Program.
- Under the Duke Energy Mercantile Self Direct Incentive Program, Vendor is defined as any third party who:
 - Promotes the sale and installation of the high efficiency equipment for the customer. The Vendor will ensure that the eligible equipment is installed and operating before submitting the application or assisting the customer in completing the application.
 - Is responsible for the product sale only and is not required to ensure installation of the eligible equipment.
- All license requirements, if any, are solely the Vendor's responsibility. Participating Vendors include equipment contractors, equipment Vendors, equipment manufacturers and distributors, energy service companies, etc. The typical Vendor role is to contact/solicit eligible customers building new or retrofitting existing facilities and encourage the installation of the energy-efficient equipment offered in Duke Energy's program.
- Incentives are paid directly to customers unless the customer assigns the incentive to the Vendor. The assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount. Incentives are taxable to the entity who receives the rebate check. Rebates greater than \$600 will be reported to the IRS unless documentation of tax exempt status is provided.
- Vendors may not represent to customers that Duke Energy endorses their specific products or services. Duke Energy does not endorse specific products, services, or companies – only energy-efficient technologies.
- Vendors may advise customers of their option to have Duke Energy make their rebate check(s) payable to the Vendor if the customer's rebate amount is being deducted from the total sale price in advance. The customer must complete and sign the Payment Release Authorization section of the Mercantile Self Direct Incentive Program Application.
- Vendors may use the words "Duke Energy's Mercantile Self Direct Incentive Program" in promotional materials or advertisements. Vendors may use the name Duke Energy in a text format to describe the Mercantile Self Direct Incentive Program, but are not permitted to use Duke Energy's logos.
- For Vendors who properly install the qualifying equipment, the equipment shall be installed and operating prior to an application being submitted. A percentage of each Vendor's installations will be subject to inspection by Duke Energy for verifying that the equipment is installed and operating. Vendors demonstrating high failure rates (based on a statistically significant sample) will have 100% of subsequent jobs inspected or may have their participation in the Mercantile Self Direct Incentive Program revoked by Duke Energy in its sole discretion.
- Vendors shall provide customers with applicable equipment warranty information for all measures installed. Vendors shall provide the required documentation for customers to apply for the rebate (invoices with model numbers and quantities, specification sheets for installed equipment, etc.) and assist customers in filling out the application.
- Vendors shall comply with all applicable local, state, and federal laws and codes when performing installation and related functions.
- Duke Energy reserves the right to revoke a Vendor's participation in Mercantile Self Direct Incentive Program if, in Duke Energy's sole judgment, the Vendor fails to comply with the program's guidelines and requirements.
- Mercantile Self Direct Incentive Program offerings may be modified or terminated without prior notice. Check Duke Energy's Web site for current program status.

Vendors can sign up to be on Duke Energy's Web site as a participating Vendor and be added to Duke Energy's e-mail distribution by emailing the Vendor Participation Agreement (VPA) to SelfDirect@duke-energy.com or faxing to **513-419-5582**.

Guidelines for Vendor Activities

- Vendors shall sign and return the attached VPA to Duke Energy prior to soliciting customer participation or when submitting an application. Rebate payments will not be released to a Vendor unless a signed VPA is on file.
- Vendors shall not misrepresent the nature of their role in the program. In particular, Vendors shall not state or imply to customers, or any persons, that the Vendor is employed by or working on Duke Energy's behalf.

For more information, call **1-866.380.9580** or visit www.duke-energy.com.

Smart Saver Incentive Program

Technology	Responsible for sales and not installs*	Responsible for sales and Installation*	Technology	Responsible for sales and not installs*	Responsible for sales and Installation*
Lighting	☐	☐	Thermal Storage	☐	☐
Heating Ventilation & Cooling	☐	☐	Pumps/Motors/VFD's	☐	☐
Food Service	☐	☐	Chillers	☐	☐
Water Heating	☐	☐	Refrigeration	☐	☐
Process Equipment (air compressors, injection molding, etc.)	☐	☐	Window Film	☐	☐

* Check all that apply

Vendors who wish to be listed as a Mercantile Self Direct Incentive Program participating Vendor shall complete this form. A signed copy of this form must be on file at Duke Energy in order for the Vendor to receive incentive payments. Fax form to **513-419-5572** or email to SelfDirect@duke-energy.com.

I have read and understand the Mercantile Self Direct Incentive Program Requirements for Vendor Participation, and I agree to comply with all requirements set forth therein. By signing this agreement, I agree to provide my customers with information and documentation that is true and accurate to the best of my knowledge. I hereby represent and warrant that the Tax ID and Vendor Tax Status provided below are true and accurate. I agree that any confidential information concerning my customer, including but not limited to Duke Energy service account information, will be used for the sole purpose of facilitating the customer's participation in the Mercantile Self Direct Incentive Program. Further, I understand that I am responsible for making sure everyone working for me understands the requirements prior to soliciting customer participation.

Vendor Federal Tax ID Number	
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To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a third-party vendor. The third-party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the third-party vendor have signed confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, As you will not be qualified to participate in the incentive program.

Vendor Tax Status	☐ Corporation	☐ Individual/Sole Proprietor	☐ Partnership	☐ Other
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Contact me via	☐ Phone	☐ E-Mail	☐ Mail	
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Company Name	
Mailing Address	
City, State, Zip	
Phone/Fax	
Primary E-mail Address	
Secondary E-mail Address	
Vendor Signature	
Title	
Print Name	
Date	

For more information, call 1-866-380-9580 or visit www.duke-energy.com.

MERCANTILE SELF DIRECT Ohio Heating / Cooling Equipment Incentive Application

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email the complete, signed application with all required documents to SelfDirect@duke-energy.com, or fax to 513-419-5572

Is this application: ☒ **NEW** (original) or ☐ **REVISED** (changes made to original application)

Building Type – Required (check one)		
☐ Data Centers	☐ Full Service Restaurant	☒ Office
☐ Education/K-12	☐ Healthcare	☐ Public Assembly
☐ Education Other	☐ Industrial	☐ Public Order/Safety
☐ Elder Care/Nursing Home	☐ Lodging	☐ Religious Worship/Church
☐ Food Sales/Grocery	☐ Retail (Small Box)	☐ Service
☐ Fast Food Restaurant	☐ Retail (Big Box)	☐ Warehouse
☐ Other:		
How did you hear about the program? (check one)		
☒ Duke Energy Representative	☐ Web Site	☐ Radio
☐ Contractor / Vendor	☐ Other	

Please check each box to indicate completion of the following program requirements:

☐ All sections of application	☒ Invoice with make, model number, quantity and equipment manufacturer	☒ Tax ID number for payee	☒ Customer/vendor agree to Terms and Conditions
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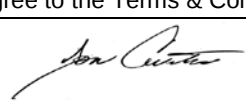
Customer Information					
Customer/Business	The Cincinnati Financial Corporation		Contact	Jon Curtis	
Phone	513-870-2571		Account Number	53800747-02-0	
Street Address (Where incentive should be mailed)			PO Box 145496		
City	Cincinnati	State	Ohio	Zip Code	45250
Installation Street Address		8685 Winton Road			
City	Cincinnati	State	Ohio	Zip Code	45231
E-mail Address	Jon_Curti@cinfin.com				

**Failure to provide the account number associated with the location where the installation took place will result in rejection of the application.*

Vendor Information					
Vendor	Feldkamp Enterprises, Inc.		Contact	Kevin Bush	
Phone	513-347-4500		Fax	513-347-4506	
Street Address			3642 Muddy Creek		
City	Cincinnati	State	Ohio	Zip Code	45238
E-mail Address	kevin@feldkamphvac.com				

If Duke Energy has questions about this application, who should we contact? ☒ Customer ☐ Vendor

Payment Information		
Who should receive incentive payment?	☒ Customer ☐ Vendor (Customer must sign below)	
I hereby authorize payment of incentive directly to the vendor:	Customer Signature (written signature)	
	Date	
Provide Tax ID Number for Payee	Customer Tax ID #	
	31-0542366	
	Vendor Tax ID #	

Terms and Conditions			
I have read and hereby agree to the Terms & Conditions and Program Requirements.			
Customer Signature		Vendor Signature	
Date	8/19/2011	Date	
Title	Supervisor - HVAC Ops.	Title	

Incentives are subject to change and may be discontinued at the sole discretion of Duke Energy. Equipment must be installed and operable to be eligible for incentives. As Federal Energy Policy Law changes, equipment efficiency requirements are subject to change.

The Equipment below is (check one): ☒ New Equipment / New Construction

Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Central Air Unit Incentives (Rooftop and Unitary AC and HEAT PUMPS*)

Description	Make/Model # (for split system, supply both the indoor and outdoor coil numbers)	# of Units	Tons Per Unit	Incentives per Ton**	Installed AHRI Efficiency Rating (mark one)	AHRI Reference Number (required)***	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive
AAON Rooftop Unit	RN-015-3-0-EA09- 3F9	1	15	\$20.00	☐ SEER/EER** ☒ SEER/EER**	4165268	6570	\$23,687.25	12/8/2009	\$300.00
					☐ SEER/EER** ☐ SEER/EER**					
					☐ SEER/EER** ☐ SEER/EER**					
					☐ SEER/EER** ☐ SEER/EER**					
					☐ SEER/EER** ☐ SEER/EER**					

** Incentive capped at 50% of the equipment cost.

Cooling Incentive Table and AHRI Rated Efficiency Requirements*

Description	Size Range	Minimum AHRI Efficiency	Incentive
Packaged Terminal Air Conditioning			
A	All sizes	See ** below	\$10/unit
Unitary and Rooftop Air Conditioning			
B	<65,000 BTUH (1 Phase)	14.5 SEER/split system; 14 SEER/single package system	\$12.50/ton
C	<65,000 BTUH (3 Phase)	12.0 EER/split system; 11 EER/single package system	\$10/ton
D	65,000-135,000 BTUH	11.0 EER	\$12.50/ton
E	136,000-240,000 BTUH	11.0 EER	\$20/ton
F	241,000-760,000 BTUH	10.0 EER	\$10/ton
G	>760,000 BTUH	10.0 EER	\$15/ton
Unitary and Rooftop Heat Pump – only Air-to-Air Heat Pump units qualify			
H	<65,000 BTUH (1 Phase)	14.5 SEER/split system; 14 SEER/single package system	\$12.50/ton
I	<65,000 BTUH (3 Phase)	12.0 EER split system; 11 EER/single package system	\$10/ton
J	65,000-135,000 BTUH	11.0 EER	\$17.50/ton
K	136,000-240,000 BTUH	10.0 EER	\$17.50/ton
L	>241,000 BTUH	10.0 EER	\$17.50/ton

** PTAC Minimum Efficiency (EER) calculation: $12.8 \text{ EER} - (.213 \times (\text{BTUH}/1000))$

*** Incentive capped at 50% of the equipment cost.

- Duke Energy requires an AHRI reference # or documentation from the AHRI Manual to verify the required efficiency level for all central air systems. If the equipment or matched set is not in the AHRI manual, the manufacturer's technical fact sheets must be provided showing the efficiency level tested under AHRI conditions. Equipment capacity (size) and efficiency must be based on AHRI design conditions.
- For split systems, the indoor coil and condenser must be a matched set to be eligible for incentives.
- Cooling system(s) must operate >1,500 hours annually to be eligible.
- Incentives are only available for Air-to-Air HP units. Ground Source and Water Source Heat Pumps are not eligible. Incentives may be available under the custom program. See custom application on the Duke Energy Mercantile Self Direct website for application and equipment requirements.**
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ New Equipment / New Construction
 Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Energy Star Window / Sleeve / Room AC Incentives

Description*	Make/Model #	Size Range Btu/hr	Incentive per Unit*	Quantity	EER	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive

** Incentive capped at 50% of the equipment cost.

Energy Star Window / Sleeve / Room Incentive Table

Size Range	EER	Incentive		EER	Incentive		EER	Incentive
<8,000 BTU/hr	10.7	\$12.50		11.2	\$17.50		11.6	\$20
8,000 – 13,999 BTU/hr	10.8	\$12.50		11.3	\$17.50		11.8	\$20
14,000 BTU – 19,999 BTU/hr	10.7	\$25		11.2	\$37.50		11.6	\$40
>=20,000 Btu/hr	9.4	\$25		9.8	\$37.50		10.2	\$40

- Cooling system(s) must operate >1,500 hours annually to be eligible.
- An equipment data sheet is required stating that the unit is Energy Star rated and providing the EER.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ New Equipment / New Construction

Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

Air Source Heat Pump Water Heater Incentives***

Description*	Make/Model #	Quantity	Size Range	Incentive per Tank*	Installed COP Efficiency*	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive**
			MBH						
			MBH						
			MBH						

** Incentive capped at 50% of the equipment cost.

Air Source Heat Pump Water Heater Incentive Table

Description	Size Range	Minimum COP Efficiency	Incentive*
Air source Heat Pump Water Heater			
Q	10-50 MBH	3.0	\$1,000/unit
R	51-100 MBH	3.0	\$1,750/unit
S	101-300 MBH	3.0	\$2,500/unit
T	301v-500 MBH	3.0	\$3,500/unit
U	>500 MBH	3.0	\$4,500/unit

* Incentive capped at 50% of the equipment cost.

- Incentives are only available for Air Source Heat Pump water heaters.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.
- An equipment data sheet is required stating that the COP.

The Equipment below is (check one): ☐ New Equipment / New Construction

Early replacement of existing equipment or replacement of failed equipment must apply for Self Direct Custom program.

High Efficiency Commercial Electric Water Heater Incentives***

Description*	Make/Model #	Quantity	Size Range	Incentive per Tank*	Installed Energy Factor*	Annual Operating Hours (min. of 1500)	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive**
			MBH						
			MBH						
			MBH						

** Incentive capped at 50% of the equipment cost.

High – Efficiency Commercial Electric Water Heater Incentive Table

Description	Size Range	Minimum Energy Factor (EF)	Incentive*
V	All	0.93	\$10/unit

* Maximum incentive cannot exceed 50% of the total equipment cost.

- Energy Factor (EF) must be a minimum of 0.93 to qualify.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.
- An equipment data sheet is required stating that the EF.

The Equipment below is (check one): ☐ Retrofit (installed on existing equipment)
 New construction or replacement of failed equipment must apply for Self Direct Custom program.

Window Film Incentives

Item Number (Model #)	SHGC*	Square Feet Installed	Incentive per Square Foot	Direction Window Faces	Number of Windows	Date Installed (mm/yy)	Project Cost	Total Incentive**
			\$.50/sq.ft	☐ East ☐ West ☐ South				
			\$.50/sq.ft	☐ East ☐ West ☐ South				
			\$.50/sq.ft	☐ East ☐ West ☐ South				

** Incentive is capped at a maximum of 50% of the project cost (equipment and external labor).

Window Film Incentive

Description	Minimum Efficiency	Incentive*
Window Film	SHGC or 0.40 or less or a shading coefficient of 0.45 or less	\$.50/square ft.

*Incentive is capped at of 50% of the project cost (material and external labor).

- Window Film must be installed according to the manufacturer's instructions on south, east or west facing windows; have a solar heat gain coefficient (SHGC) of 0.40 or less, or a shading coefficient of 0.45 or less and cover the entire window aperture.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ Retrofit (installed on existing equipment)
 New construction or replacement of failed equipment must apply for Self Direct Custom program.

Setback/Programmable Thermostat Incentives (Retrofit only)

Make/Model #	Quantity	Incentive per Unit*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive

* Incentive capped at 50% of the equipment cost.

Setback/Programmable Thermostat Incentives (Retrofit only)

Description	Incentive
Setback/Programmable Thermostat	\$25/thermostat*

- Programmable Thermostats must replace existing standard thermostats – Incentives for new construction are not applicable.
- Incentives for Programmable Thermostats cannot exceed 50% of the cost of the thermostat.
- Thermostat(s) shall be installed according to manufacturer's specifications and comply with manufacturer's warranty requirements. Thermostat(s) shall have a program memory retention capability or battery back-up (minimum 2 days), with warning indicator for battery replacement. Thermostat(s) shall be capable of automatic variation of the start of daily-warm-up time depending on indoor and outdoor temperature variations.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

The Equipment below is (check one): ☐ Retrofit (installed on existing equipment)
 New construction or replacement of failed equipment must apply for Self Direct Custom program.

Guestroom Energy Management Controls (Retrofit only)						
Make/Model #	Please indicate whether room is heated by Natural Gas (G) or Electric (E)? (please circle)	Quantity	Incentive per Room*	Equipment Cost	Date Installed and Operable (mm/yy)	Total Incentive
	E or G					
	E or G					
	E or G					

* Incentive capped at 50% of the equipment cost.

Guestroom Energy Management Controls (Retrofit only)	
Description	Incentive per Room
Guestroom Energy Management Controls for rooms heated with Electric	\$40
Guestroom Energy Management Controls for rooms heated with Gas	\$15

- Incentives are available for sensors that control HVAC units for individual hotel rooms.
- Sensors controlled by a front desk system are not eligible.
- Sensors must be controlled by automatic occupancy detectors.
- During unoccupied periods, the default setting for controlled units should differ by at least 8 degrees from the operating set point.
- The incentive is per guest room controlled, not per sensor; for multi-room suites the incentive is available per room controlled, if a sensor is installed in each room.
- Replacement or upgrades of existing occupancy-based controls are not eligible for a prescriptive incentive.
- All equipment must be **new** to be eligible for incentives. Used equipment is **not** eligible for incentives.

Program Requirements

Incentive Eligibility

- Incentives are only available to customers on a Duke Energy Ohio non-residential rate.
- Duke Energy Customers who purchase electric generation from an alternative supplier are eligible to participate.
- Incentive will not be paid until eligible equipment has been installed, is available to operate, and verification has been completed by Duke Energy staff as noted in the Term & Conditions stated below.
- Duke Energy reserves the right to revise incentive levels and/or qualifying efficiency levels at any time.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the Payment Information section on page 1 of this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reproduce the purchase price paid for the equipment by an equivalent amount.
- Leased equipment is eligible for incentives providing the equipment meets the program requirements and the customer provides the required documentation noted on the Incentive Application Process page of this application.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the appropriate places on this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount.
- Any equipment which, either separately or as part of a project, has or will receive an incentive from any other Duke Energy program is ineligible.
- In no case will Duke Energy pay an incentive above the actual cost of the new equipment.
- Incentive recipient assumes all responsibilities for any tax consequences resulting from Duke Energy incentive payment.
- To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a 3rd party vendor. The 3rd party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the 3rd party vendor have signed a confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, as you will not be qualified to participate in the incentive program.

Terms and Conditions

I certify that this premise is served by Duke Energy (or an affiliate of Duke Energy), that the information provided herein is accurate and complete, and that I have purchased and installed the high efficiency equipment (indicated herein) for the business facility listed herein and not for resale. Attached is an itemized invoice for the indicated installed equipment. I understand that the proposed incentive payment from Duke Energy is subject to change based on verification and Duke Energy approval. I agree to Duke Energy verification of both the sales transaction and equipment installation which may include a site inspection from a Duke Energy representative or Duke Energy agent. I understand that I am not allowed to receive more than one incentive from Duke Energy on any piece of equipment. I also understand that my participation in the program may be taxable and that my company is solely responsible for paying all such taxes. I hereby agree to indemnify, hold harmless and release Duke Energy and its affiliates from any actions or claims in regards to the installation, operation and disposal of equipment (and related materials) covered herein including liability from an incidental or consequential damages. Duke Energy does not endorse any particular manufacturer, product or system design within these programs; does not expressly or implicitly warrant the performance of installed equipment (Contact your contractor for details regarding equipment warranties) and is not liable for any damage caused by the installation of the equipment nor for any damage caused by the malfunction of the installed equipment.

Incentive Application Instructions

IMPORTANT NOTICE

Delays in processing incentive payments will occur if required documentation is not included with completed application(s).

1. Contact Duke Energy toll free at 866-380-9580 to confirm customer eligibility. Applications are available for download at www.duke-energy.com.
2. Review program and equipment requirements on the incentive application. (Page7)
3. Purchase and install eligible energy-efficient equipment.
4. Complete and submit application for equipment that was installed after 1/1/2008.
5. **The following items must be included to verify projects. If they are not included, it will delay payment of incentive.**
 - A. Itemized invoice for all equipment installed to include:
 - a. Equipment cost
 - b. Quantity per equipment type installed
 - c. Model # for each equipment type
 - d. Manufacturer's data sheet for each equipment model #.
 - B. **Make sure the account number provided on the cover page (customer information section) is associated with the location where the equipment was installed. If the account # does not match the address where the equipment was installed, the application will be rejected as ineligible.**
 - C. Provide required tax ID# for payee.
 - D. Customer must sign and date the application after reviewing the Terms and Conditions. If customer wishes to **assign payment of the incentive directly to the vendor**, the customer should circle the appropriate payee in the Payment Information section of the application and sign their name to authorize payment.
6. Duke Energy may require site verification of projects that have been self-installed, prior to payment of incentive.
8. Email the complete, signed application with all required documents to SelfDirect@duke-energy.com or fax to 513-419-5572.
8. A percentage of equipment installations will be site verified for quality assurance purposes. Once selected, a Duke Energy representative will contact the customer to arrange for the inspection. All incentive payments related to the project will be withheld until site verification is complete. There is no charge to the customer for these inspections.

Mercantile Self Direct Incentive Program Requirements for Vendor Participation

Program Overview

- Duke Energy offers its eligible non-residential customers the opportunity to increase profitability through energy cost savings and contribute to a cleaner environment by participating in our Mercantile Self Direct Incentive Program.
- Under the Duke Energy Mercantile Self Direct Incentive Program, Vendor is defined as any third party who:
 - Promotes the sale and installation of the high efficiency equipment for the customer. The Vendor will ensure that the eligible equipment is installed and operating before submitting the application or assisting the customer in completing the application.
 - Is responsible for the product sale only and is not required to ensure installation of the eligible equipment.
- All license requirements, if any, are solely the Vendor's responsibility. Participating Vendors include equipment contractors, equipment Vendors, equipment manufacturers and distributors, energy service companies, etc. The typical Vendor role is to contact/solicit eligible customers building new or retrofitting existing facilities and encourage the installation of the energy-efficient equipment offered in Duke Energy's program.
- Incentives are paid directly to customers unless the customer assigns the incentive to the Vendor. The assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount. Incentives are taxable to the entity who receives the rebate check. Rebates greater than \$600 will be reported to the IRS unless documentation of tax exempt status is provided.
- Vendors may not represent to customers that Duke Energy endorses their specific products or services. Duke Energy does not endorse specific products, services, or companies – only energy-efficient technologies.
- Vendors may advise customers of their option to have Duke Energy make their rebate check(s) payable to the Vendor if the customer's rebate amount is being deducted from the total sale price in advance. The customer must complete and sign the Payment Release Authorization section of the Mercantile Self Direct Incentive Program Application.
- Vendors may use the words "Duke Energy's Mercantile Self Direct Incentive Program" in promotional materials or advertisements. Vendors may use the name Duke Energy in a text format to describe the Mercantile Self Direct Incentive Program, but are not permitted to use Duke Energy's logos.
- For Vendors who properly install the qualifying equipment, the equipment shall be installed and operating prior to an application being submitted. A percentage of each Vendor's installations will be subject to inspection by Duke Energy for verifying that the equipment is installed and operating. Vendors demonstrating high failure rates (based on a statistically significant sample) will have 100% of subsequent jobs inspected or may have their participation in the Mercantile Self Direct Incentive Program revoked by Duke Energy in its sole discretion.
- Vendors shall provide customers with applicable equipment warranty information for all measures installed. Vendors shall provide the required documentation for customers to apply for the rebate (invoices with model numbers and quantities, specification sheets for installed equipment, etc.) and assist customers in filling out the application.
- Vendors shall comply with all applicable local, state, and federal laws and codes when performing installation and related functions.
- Duke Energy reserves the right to revoke a Vendor's participation in Mercantile Self Direct Incentive Program if, in Duke Energy's sole judgment, the Vendor fails to comply with the program's guidelines and requirements.
- Mercantile Self Direct Incentive Program offerings may be modified or terminated without prior notice. Check Duke Energy's Web site for current program status.

Vendors can sign up to be on Duke Energy's Web site as a participating Vendor and be added to Duke Energy's e-mail distribution by emailing the Vendor Participation Agreement (VPA) to SelfDirect@duke-energy.com or faxing to **513-419-5582**.

Guidelines for Vendor Activities

- Vendors shall sign and return the attached VPA to Duke Energy prior to soliciting customer participation or when submitting an application. Rebate payments will not be released to a Vendor unless a signed VPA is on file.
- Vendors shall not misrepresent the nature of their role in the program. In particular, Vendors shall not state or imply to customers, or any persons, that the Vendor is employed by or working on Duke Energy's behalf.

For more information, call **1-866.380.9580** or visit www.duke-energy.com.

Smart Saver Incentive Program

Technology	Responsible for sales and not installs*	Responsible for sales and Installation*	Technology	Responsible for sales and not installs*	Responsible for sales and Installation*
Lighting	☐	☐	Thermal Storage	☐	☐
Heating Ventilation & Cooling	☐	☐	Pumps/Motors/VFD's	☐	☐
Food Service	☐	☐	Chillers	☐	☐
Water Heating	☐	☐	Refrigeration	☐	☐
Process Equipment (air compressors, injection molding, etc.)	☐	☐	Window Film	☐	☐

* Check all that apply

Vendors who wish to be listed as a Mercantile Self Direct Incentive Program participating Vendor shall complete this form. A signed copy of this form must be on file at Duke Energy in order for the Vendor to receive incentive payments. Fax form to **513-419-5572** or email to SelfDirect@duke-energy.com.

I have read and understand the Mercantile Self Direct Incentive Program Requirements for Vendor Participation, and I agree to comply with all requirements set forth therein. By signing this agreement, I agree to provide my customers with information and documentation that is true and accurate to the best of my knowledge. I hereby represent and warrant that the Tax ID and Vendor Tax Status provided below are true and accurate. I agree that any confidential information concerning my customer, including but not limited to Duke Energy service account information, will be used for the sole purpose of facilitating the customer's participation in the Mercantile Self Direct Incentive Program. Further, I understand that I am responsible for making sure everyone working for me understands the requirements prior to soliciting customer participation.

Vendor Federal Tax ID Number	
------------------------------	--

To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a third-party vendor. The third-party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the third-party vendor have signed confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, As you will not be qualified to participate in the incentive program.

Vendor Tax Status	☐ Corporation	☐ Individual/Sole Proprietor	☐ Partnership	☐ Other
-------------------	--------------------------------------	---	--------------------------------------	--------------------------------

Contact me via	☐ Phone	☐ E-Mail	☐ Mail	
----------------	--------------------------------	---------------------------------	-------------------------------	--

Company Name	
Mailing Address	
City, State, Zip	
Phone/Fax	
Primary E-mail Address	
Secondary E-mail Address	
Vendor Signature	
Title	
Print Name	
Date	

For more information, call 1-866-380-9580 or visit www.duke-energy.com.

APPLICATION AND CERTIFICATION FOR PAYMENT

AIA DOCUMENT G702

PAGE ONE OF

PAGES

TO OWNER: MESSER CONSTRUCTION
390 KOLB DRIVE
FAIRFIELD, OH 45014

PROJECT: CINCINNATI FINANCIAL
TOWER #3 EXPANSION

32

FROM CONTRACTOR:

PECK HANNAFORD + BRIGGS

VIA ARCHITECT:

PERIOD TO: 9/30/09

PROJECT NOS: 04-9670

Distribution to:
☐ OWNER
☐ ARCHITECT
☒ CONTRACTOR
☐

CONTRACT FOR: HVAC / MECHANICAL

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM \$ 11,023,905.00
2. Net change by Change Orders \$ 999,899.00
3. CONTRACT SUM TO DATE (Line 1 + 2) \$ 12,023,804.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$ 12,023,804.00
5. RETAINAGE:

a. 5 % of Completed Work (Column D + E on G703) \$ 0.00
b. % of Stored Material (Column F on G703) \$
Total Retainage (Lines 5a + 5b or Total in Column I of G703) \$ 0.00

6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total) \$ 12,023,804.00
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate) \$ 12,024,096.00
8. CURRENT PAYMENT DUE \$ 1,708.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6) \$ 0.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month		
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order	\$0.00	

CONTRACT DATE:

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payments shown herein is now due

CONTRACTOR:

By: _____ Date: 9/28/09

Stat Ohio OHIO County of: HAMILTON
Subscribed and sworn to before me this 28TH SEPTEMBER 2009
Notary Public:
My Commission expires:

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$

1,708.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)
AMOUNT CERTIFIED

By: _____ Date: 9/28/09
This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

SCHEDULE OF VALUES

PECK HANNAFORD + BRIGGS

PAGE 6 of 8 PAGE

SUBCONTRACT APPLICATION FOR PAYMENT IS ATTACHED

CINCINNATI FINANCIAL CORP/TOWER #3 EXPANSION

PHB #206606

APPLICATION NUMBER: 31

APPLICATION DATE: 9/25/09

PERIOD TO: 9/30/09

Use Column I on Contracts where variable retainage for line items may apply.

A Item No.	B Description of Work	C Scheduled Value	D Work Completed		E This period	F Materials Presently Stored (Not in D or E)	G Total Completed and Stored To Date (D+E+F)		H Balance To Finish (C-G)
			From Previous Application (D+E)					% (G/C)	
123	Fans Labor	52,000	52,000		-	-	52,000	100%	0
124	Fans Material	145,000	145,000		-	-	145,000	100%	0
125	Louvers Labor	56,000	56,000		-	-	56,000	100%	0
126	Louvers Material	68,000	68,000		-	-	68,000	100%	0
127	Sound Trap Labor	18,000	18,000		-	-	18,000	100%	0
128	Sound Trap Material	47,000	47,000		-	-	47,000	100%	0
129	VAV Labor	9,500	9,500		-	-	9,500	100%	0
130	VAV Material	9,500	9,500		-	-	9,500	100%	0
131	Air Device Labor	10,000	10,000		-	-	10,000	100%	0
132	Air Device Material	16,000	16,000		-	-	16,000	100%	0
133	U/F Equipment Labor	280,000	280,000		-	-	280,000	100%	0
134	Fire/Smoke Damper Labor	54,000	54,000		-	-	54,000	100%	0
135	Fire/Smoke Damper Material	110,000	110,000		-	-	110,000	100%	0
136	Casings Labor	193,000	193,000		-	-	193,000	100%	0
137	Casings Material	240,000	240,000		-	-	240,000	100%	0
138	Boiler/Stacks Labor	39,500	39,500		-	-	39,500	100%	0
139	Boiler/Stacks Material	114,000	114,000		-	-	114,000	100%	0
140	AHU-301-304	995,000	995,000		-	-	995,000	100%	0
141	AHU-305-312	195,000	195,000		-	-	195,000	100%	0
142	CT-301-306	320,000	320,000		-	-	320,000	100%	0
143	All Hyd. Pumps	157,000	157,000		-	-	157,000	100%	0
144	VFDs	275,000	275,000		-	-	275,000	100%	0
145	VT Pumps	60,000	60,000		-	-	60,000	100%	0
146	Duct Coils	55,000	55,000		-	-	55,000	100%	0
147	FCUs	16,000	16,000		-	-	16,000	100%	0
148	UH, CUH, FTR	50,000	50,000		-	-	50,000	100%	0
149	UFAD	840,099	840,099		-	-	840,099	100%	0
150	HWB-301, 302	145,000	145,000		0	0	145,000	100%	0
PAGE TOTALS		4,569,599	4,569,599		0	0	4,569,599	100%	(0)

Invoice

Invoice Number: 081111

Date: August 11, 2011

Stoermer-Anderson, Inc.
3818 Red Bank Road
Cincinnati, Ohio 45227
513-527-2300
Fax: 513-527-2306

To: Cincinnati Insurance Company 6200 S. Gilmore Road Fairfield, OH 45014	Ship to (if different address): Cincinnati Insurance Co
---	---

SALESPERSON	ORDER NO.	DATE Authorized	SHIPPED VIA	F.O.B.	TERMS
GM			Best Way	Factory	Net 30 Days

QTY.	TAG	HP	TOTAL
	AHU301A	75	99,500.00
	AHU301B	75	99,500.00
	AHU302A	100	132,666.66
	AHU302B	100	132,666.66
	AHU303A	100	132,666.66
	AHU303B	100	132,666.66
	AHU304A	100	132,666.66
	AHU304B	100	132,666.66
	CT301	50	53,333.00
	CT302	50	53,333.00
	CT303	50	53,333.00
SUBTOTAL			
SHIPPING			
TOTAL DUE			

PAID
DUPLICATE *AM*

THANK YOU FOR YOUR ORDER!

Invoice

Invoice Number: 081111

Date: August 11, 2011

Stoermer-Anderson, Inc.

3818 Red Bank Road

Cincinnati, Ohio 45227

513-527-2300

Fax: 513-527-2306

To:

Cincinnati Insurance Company

6200 S. Gilmore Road

Fairfield, OH 45014

Ship to (if different address):

Cincinnati Insurance Co

SALESPERSON	ORDER NO.	DATE Authorized	SHIPPED VIA	F.O.B.	TERMS
GM			Best Way	Factory	Net 30 Days

QTY.	TAG	HP	TOTAL
	AHU305S	20	31,200.00
	AHU305R	10	15,600.00
	AHU306	15	23,400.00
	AHU307	20	31,200.00
	AHU308	15	23,400.00
	AHU309	10	15,600.00
	AHU310	7.5	11,700.00
	AHU311	20	31,200.00
	AHU312	7.5	11,700.00
SUBTOTAL			
SHIPPING			
TOTAL DUE			

THANK YOU FOR YOUR ORDER!

Invoice

Invoice Number: 081111

Date: August 11, 2011

Stoermer-Anderson, Inc.

3818 Red Bank Road

Cincinnati, Ohio 45227

513-527-2300

Fax: 513-527-2306

To:

Cincinnati Insurance Company

6200 S. Gilmore Road

Fairfield, OH 45014

Ship to (if different address):

Cincinnati Insurance Co

SALESPERSON	ORDER NO.	DATE Authorized	SHIPPED VIA	F.O.B.	TERMS
GM			Best Way	Factory	Net 30 Days

QTY.	TAG	HP	TOTAL
	SHWP301	50	12,560.00
	SHWP302	50	12,560.00
	SHWP303	15	3,768.00
	CHWP301	50	12,560.00
	CHWP302	50	12,560.00
	CHWP303	50	12,560.00
	SCHWP301	60	15,072.00
	SCHWP302	60	15,072.00
	SCHWP303	60	15,072.00
	P205	60	15,072.00
	P206	60	15,072.00
	P207	60	15,072.00

SUBTOTAL

SHIPPING

TOTAL DUE

THANK YOU FOR YOUR ORDER!

Date: August 11, 2011

Stoermer-Anderson, Inc.
3818 Red Bank Road
Cincinnati, Ohio 45227
513-527-2300
Fax: 513-527-2306

Cincinnati Insurance Company
6200 S. Gilmore Road
Fairfield, OH 45014

Ship to (if different address):
Cincinnati Insurance Co

QTY.	MODEL	HP	TOTAL
1	E7CV-B004	3	1,725.00
2	E7CV-B011	7.5	4,625.00
2	E7CV-B014	10	7,837.00
4	E7CV-B021	15	15,500.00
9	E7CV-B027	20	22,200.00
8	E7CV-B065	50	43,500.00
SUBTOTAL			
SHIPPING			
TOTAL DUE			

THANK YOU FOR YOUR ORDER!

**ENVIRONMENTAL AIR PRODUCTS, INC.**

3930 Virginia Ave.
CINCINNATI, OHIO 45227
PH. 513-489-9494
FAX: 513-489-6448

Invoice FC012106

DATE
12/16/2006

PAGE

1

BILL TO Peck Hannaford & Briggs, Inc.
P.O. Box 32097

Cincinnati, Ohio 45232-0097

SHIP TO Peck Hannaford & Briggs, Inc.
P.O. Box 32097

Cincinnati, Ohio 45232-0097

PURCHASE ORDER NO		CUSTOMER ID		SALES ID	SHIPPING METHOD	PAYMENT TERMS	REQ'D SHIP DATE	MASTER NUMBER
206606-107957		PHB		JCS	DROP SHIP	NET 30	N/A	51,571
QTY ORDERED	QTY SHIPPED	QTY B/O	ITEM NUMBER	DESCRIPTION		DISCOUNT	UNIT PRICE	EXTENDED PRICE
EF 301 - 1	1	1	0 AFDW-21	Centrifugal Fan		\$0.00	\$22,810.00	\$22,810.00
VF-301 & 305 - 2	2	2	0 BISW-21	Centrifugal Fan		\$0.00	\$14,210.00	\$28,420.00
N/A VF301 - 3	3	3	0 BSQ	Centrifugal inline fan		\$0.00	\$1,450.00	\$4,350.00
VF302, 303 & 304 - 3	3	3	0 TCF	Tubular Centrifugal Fan		\$0.00	\$5,275.00	\$5,275.00
N/A	1	1	0 QEP	Mixed flow plenum fan		\$0.00	\$14,493.33	\$43,480.00
EF 305 thru 310 - 6	6	6	0 SBE	Sidewall propeller exhaust fan		\$0.00	\$615.00	\$615.00
EF 304 - 1	1	1	0 SBE	Sidewall propeller exhaust fan		\$0.00	\$3,813.83	\$22,883.00
			0 Cube	Upblast roof exhaust fan		\$0.00	\$1,420.00	\$1,420.00

**** PAID ****

Subtotal	\$129,273.00
Misc	\$0.00
Tax	\$0.00
Freight	\$10.00
Trade Discount	\$0.00
Total	\$129,283.00

VSD
INSTALLATION
COSTS

DENIER

Job Name - CFC Tower 3 Expansion DUKE Rebate for VFD's || Job # - CFC Tower 3 Expansion DUKE Rebate for VFD's - Recovered

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The cost and payment of the installation for the attached list of VFD's accepted and commissioned on April 4, 2008.

System	DB Material	Qtd Mat (Ext)	Qtd Material	Total Material	Direct Hours
Quantity of (1) 3 HP	171.99			171.99	15.27
Quantity of (4) 125 HP	5,869.20			5,869.20	140.76
Quantity of (8) 100 HP	9,492.08			9,492.08	257.77
Quantity of (2) 75 HP	1,699.64			1,699.64	52.48
Quantity of (8) 60 HP	4,839.98			4,839.98	198.00
Quantity of (8) 50 HP	3,710.63			3,710.63	173.31
Quantity of (9) 20 HP	2,200.38			2,200.38	145.96
Quantity of (5) 15 HP	1,030.97			1,030.97	79.06
Quantity of (2) 10 HP	343.98			343.98	30.54
Quantity of (2) 7.5 HP	343.98			343.98	30.54
Revised Totals	29,702.83			29,702.83	1,123.69
Remainder					
Final Price	29,702.83			29,702.83	1,123.69

System	Indirect Hours	Total Hours	Direct Labor \$	Indirect Labor \$	Total Labor \$
Quantity of (1) 3 HP		15.27	687.15		687.15
Quantity of (4) 125 HP		140.76	6,334.20		6,334.20
Quantity of (8) 100 HP		257.77	11,599.65		11,599.65
Quantity of (2) 75 HP		52.48	2,361.60		2,361.60
Quantity of (8) 60 HP		198.00	8,910.00		8,910.00
Quantity of (8) 50 HP		173.31	7,798.95		7,798.95
Quantity of (9) 20 HP		145.96	6,568.20		6,568.20
Quantity of (5) 15 HP		79.06	3,557.70		3,557.70
Quantity of (2) 10 HP		30.54	1,374.30		1,374.30
Quantity of (2) 7.5 HP		30.54	1,374.30		1,374.30
Revised Totals		1,123.69	50,566.05		50,566.05
Remainder					
Final Price		1,123.69	50,566.05		50,566.05

System	Subs	General Expenses	Equipment	Overhead	Markup
Quantity of (1) 3 HP				85.92	47.25
Quantity of (4) 125 HP				1,220.34	671.19
Quantity of (8) 100 HP				2,109.16	1,160.05
Quantity of (2) 75 HP				406.12	223.37
Quantity of (8) 60 HP				1,375.00	756.25
Quantity of (8) 50 HP				1,150.96	633.02
Quantity of (9) 20 HP				876.86	482.27
Quantity of (5) 15 HP				458.87	252.37
Quantity of (2) 10 HP				171.83	94.51
Quantity of (2) 7.5 HP				171.83	94.51
Revised Totals				8,026.89	4,414.79
Remainder					
Final Price				8,026.89	4,414.79

OH #22436
 KY #CE64192

CINCINNATI
 10891 State Route 128
 Harrison, Ohio 45030
 513.738.2641 (tel)
 513.738.5855 (fax)

COLUMBUS
 4000 Gantz Road, Suite C
 Grove City, Ohio 43123
 614.338-4664 (tel)
 614.338-4663 (fax)



Job Name - CFC Tower 3 Expansion DUKE Rebate for VFD's || Job # - CFC Tower 3 Expansion DUKE Rebate for VFD's - Recovered

7/27/2011 2:55:07 PM

2

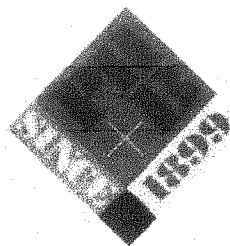
System	Total	Area	Db Mtl \$ /Area	Qtd Mtl \$ /Area	Total Mtl \$ /Area
Quantity of (1) 3 HP	992.31				
Quantity of (4) 125 HP	14,094.93				
Quantity of (8) 100 HP	24,360.94				
Quantity of (2) 75 HP	4,690.73				
Quantity of (8) 60 HP	15,881.23				
Quantity of (8) 50 HP	13,293.56				
Quantity of (9) 20 HP	10,127.71				
Quantity of (5) 15 HP	5,299.91				
Quantity of (2) 10 HP	1,984.62				
Quantity of (2) 7.5 HP	1,984.62				
Revised Totals	92,710.56				
Remainder					
Final Price	92,710.56				

System	Labor \$ /Area	Total \$ /Area	Direct Hrs /Area	Ind Hrs /Area	Total Hrs /Area
Quantity of (1) 3 HP					
Quantity of (4) 125 HP					
Quantity of (8) 100 HP					
Quantity of (2) 75 HP					
Quantity of (8) 60 HP					
Quantity of (8) 50 HP					
Quantity of (9) 20 HP					
Quantity of (5) 15 HP					
Quantity of (2) 10 HP					
Quantity of (2) 7.5 HP					
Revised Totals					
Remainder					
Final Price					

OH #22436
KY #CE64192

CINCINNATI
10891 State Route 128
Harrison, Ohio 45030
513.738.2641 (tel)
513.738.5855 (fax)

COLUMBUS
4000 Gantz Road, Suite C
Grove City, Ohio 43123
614.338.4664 (tel)
614.338.4663 (fax)



Peck Hannaford & Briggs
1401 Chester Avenue
Cincinnati, OH 45232
513-681-4000
513-681-4740 fax

WARRANTY

CINCINNATI FINANCIAL CORPORATION
206606

**THE PECK HANNAFORD & BRIGGS COMPANY WARRANTS ALL
LABOR, EQUIPMENT AND MATERIAL SUPPLIED AND/OR
INSTALLED BY THEM FOR A PERIOD OF ONE YEAR. NORMAL
MAINTENANCE BY OWNER IS THE ONLY EXCEPTION.**

**THE PERIOD WILL BEGIN ON APRIL 4, 2008 AND WILL END ON
APRIL 3, 2009.**

SINCERELY,

Bob Shad

THE PECK HANNAFORD AND BRIGGS COMPANY

Equal Opportunity Employer



WeAreBuilding.

SUBCONTRACT CHANGE ORDER

CFC Winton Center-2008
8585 Winton Rd
Cincinnati, OH 45231

Project : 08-4360-00
Phone : 513-521-2984
Fax : 513-521-3173

Subcontract #: 4360SC02 Change #: 005

Date: 01-25-2010

To Subcontractor: Feldkamp Enterprises Inc
3642 Muddy Creek
Cincinnati OH 45238

In accordance with your Subcontract agreement on the above mentioned project, and in keeping with all the articles therein and, subject to all its conditions, you are hereby notified to proceed with the following changes in your Work as hereinafter described:

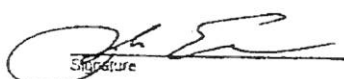
<u>Change Item #</u>	<u>Description</u>	<u>Amount</u>
005	Premium Time for Insulator	\$616.00
Total:		\$616.00

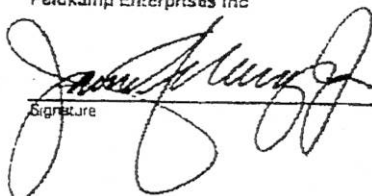
For the sum of SIX HUNDRED SIXTEEN DOLLARS 00/100

The original Contract Sum was.....	\$	450,055.00
Net change by previously authorized Change Orders.....	\$	22,162.00
The Contract Sum prior to this Change Order.....	\$	482,217.00
The amount of this Change Order is	\$	616.00
The new Contract Sum including this Change Order will be	\$	482,833.00
The Contract Time Will Not Be Changed.		
The Date of Substantial Completion as of This Change Order therefore is		12-03-2009
All other terms and conditions of the original contract remain unchanged.		

Authorized by
Messer Construction Co.

Accepted By
Feldkamp Enterprises Inc


Signature Date 1/26/10


Signature Date 1/26/10

Signature Date

Signature Date

APPLICATION AND CERTIFICATE FOR PAYMENT

AIA DOCUMENT G702 (Instructions on reverse side) PAGE ONE OF PAGES

TO OWNER: **Messer Construction** PROJECT: **CFC Winton Center** APPLICATION NO.: **8** Distribution to:

5158 Fishwick Drive
Cincinnati, OH 45216-2216

8685 Winton Road
Cincinnati, OH 45231

PERIOD TO: **1/31/10** ☐ OWNER
PROJECT NOS.: ☐ ARCHITECT

FROM CONTRACTOR: **Feldkamp Enterprises, Inc.** VIA ARCHITECT: ☐ CONTRACTOR

3642 Muddy Creek
Cincinnati, OH 45238
CFC Winton Center

CONTRACT DATE: **5/27/09** ☐
INVOICE NO: **3093-8** ☐

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract, Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM	460,055.00
2. Net change by Change Orders	22,778.00
3. CONTRACT SUM TO DATE (Line 1 + 2)	482,833.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)	482,833.00
5. RETAINAGE:	
a. <u>0</u> % of Completed Work (Columns D + E on G703)	0.00
b. <u>0</u> % of Stored Material (Column F on G703)	0.00
Total Retainage (Line 5a + 5b or Total in Column I of G703)	0.00
6. TOTAL EARNED LESS RETAINAGE (Line 4 less Line 5 Total)	482,833.00
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)	476,459.00
8. CURRENT PAYMENT DUE	6,374.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6)	0.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	16,404.00	0.00
Total approved this Month	6,374.00	0.00
TOTALS	22,778.00	0.00
NET CHANGES by Change Order	22,778.00	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: **Feldkamp Enterprises, Inc.** Date: **1/31/10**
By: *[Signature]*

State of: **OHIO**
County of: **Hamilton**
Subscribed and sworn to before me this **31st** day of **January**

Notary Public: **Patricia A. Hucke** Notary Public, State of Ohio
My Commission expires: **12-26-2013**

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED **\$ 6,374.00**

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform to the amount certified.)

ARCHITECT: **[Signature]** Date: **2/5/2010**
By: **[Signature]**
This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

**PURCHASE ORDER****IMPORTANT**

Page: 1

No Invoice will be accepted for payment without bearing our Order No.

3642 MUDDY CREEK • CINCINNATI, OHIO 45238 • (513) 347-4500
FAX. NO. (513) 347-4506**ORDER TO:**Prefer. Equip. Co. c/o AAON
2425 South Yukon Avenue
Tulsa, OK 74107**SHIP TO:**CFC Winton Center
8685 Winton Road
Cincinnati, OH 45231

Job: CFC Winton Center

P.O. NO.	DATE	BUYER	VENDOR NO.	TERMS	ATTN:
30931A	6/4/2009	KEVIN	PREFERR	3/0 Net 0	Ted Green
ITEM NUMBER	DESCRIPTION	REQ. DATE	QTY.	UNIT PRICE	EXT. COST

Provide ten (10) RTU's per plans, specifications and attached quote.

TOTAL FFA

183181.00 183,181.00

* ALL INVOICES ARE DUE BY THE 25TH OF THE MONTH. ANY INVOICES RECEIVED AFTER WILL NOT BE POSTED FOR PAYMENT UNTIL THE FOLLOWING MONTH.

* ALL DELIVERIES REQUIRE 24 HOUR NOTIFICATION. NO DELIVERIES WILL BE ACCEPTED AT ANY OTHER LOCATION THAN THE "SHIP TO" ADDRESS UNLESS A CHANGE OF ADDRESS AUTHORIZATION FORM FROM FELDKAMP ENTERPRISES, INC. IS PRESENTED.This is a confirmation.
This Job is Tax Exempt.
This order is not valid until approval of shop drawings.
Please submit 12 copies of submittals to our office ASAP.
All material is freight allowed.
We will notify when to deliver.**TOTAL**

183,181.00

FELDKAMP ENTERPRISES, INC.

Per:

Preferred Equipment Company

617 Congress Park Drive ■ Dayton, Ohio 45459 ■ T: 937-432-6099 ■ F: 937-432-6191

Ted@PreferredEquipment.NET

Date: April 7, 2009

To: All Contractors

From: Ted Green

Re: Cincinnati Insurance Company - CFC WINTON CENTER

Equipment Quote:

We propose to supply the following equipment for the Cincinnati Insurance Company CFC Winton Center - Cincinnati, Ohio.

- **AAON - Rooftop Unit RTU-1 & RTU-10 (5 Ton) Weight: 1040 lbs Each**
 - 460 Volt 3 phase - Single Point Power Connection
 - R410A Refrigerant w/ Digital Scroll Compressors
 - Air Cooled Condenser - 6 Row Coils
 - Modulating Cooling
 - Stainless Steel Heat Exchanger
 - Modulating Heating
 - Economizer
 - Full Modulating Actuator w/ Enthalpy Limiter
 - CO2 Override
 - Belt Drive Supply Air Fan
 - 2" Pleated Pre-Filters - 30 % eff
 - Fan Cycling & Adjustable Lock-Outs Each Circuit
 - Modulating Hot Gas Re-Heat Coil
 - Insulation Liners
 - Standard Stainless Drain Pan
 - Constant Volume Unit Controller
 - Wattmaster Controls
 - 14" High Solid Bottom Curb
 - Standard 5 Year Non Pro-Rated Compressor Warranty
 - Standard 25 Year Non-Prorated Heat Exchanger Warranty
 - Start-Up

- **AAON - Rooftop Unit RTU-2 Thru RTU-9 (8, 10, 13 & 15 Ton) Weight: 2000 lbs Each**
 - 460 Volt 3 phase - Single Point Power Connection
 - R410A Refrigerant w/ Digital Scroll Compressors
 - Air Cooled Condenser - Standard Row Coils
 - Modulating Cooling
 - Stainless Steel Heat Exchanger
 - Modulating Heating
 - Economizer
 - Full Modulating Actuator w/ Enthalpy Limit
 - CO2 Override
 - Direct Drive Supply Air Fan w/VFD
 - 2" Pleated Pre-Filters - 30 % eff
 - Fan Cycling & Adjustable Lock-Outs Each Circuit
 - Hot Gas By-Pass Lag Circuit
 - Modulating Hot Gas Re-Heat Coil
 - Standard Double Wall R15 Foam Walls
 - Standard Stainless Drain Pan
 - Constant Volume Unit Controller
 - Wattmaster Controls
 - 14" High Solid Bottom Curb
 - Standard 5 Year Non Pro-Rated Compressor Warranty
 - Standard 25 Year Non-Prorated Heat Exchanger Warranty
 - Start-Up

Allow 8 to 10 weeks for delivery of equipment

Price Freight Allowed. Sales Tax not included.

\$183,181.00

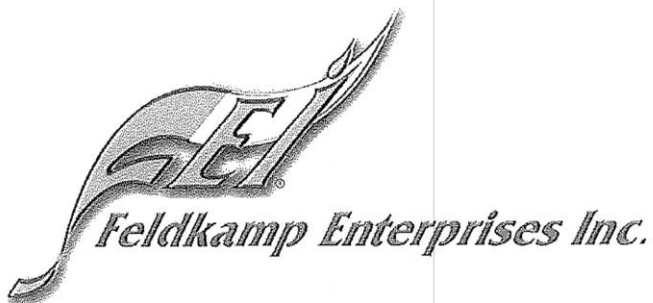
Quote is good for 30 days

Thank you for the opportunity to quote this project.

Sincerely,

Ted Green

All material is f.o.b. factory and the only warranty is the one provided by the Manufacturer unless otherwise stated. Prices do not include equipment features not listed above, labor for unloading, equipment installations, external wiring, start-up services, sales tax or use tax payable under any State or Federal statute unless otherwise stated.



3642 Muddy Creek
Cincinnati, Ohio 45238

[513] 347-4500
Fax [513] 347-4506
www.FeldkampHVAC.com

Attention: Jon Curtis

RE: CFC WINTON CENTER / RTU VALVE'S

SUMMARY:

RTU #1	6 TON	9,474.90
RTU #2	10 TON	15,791.50
RTU #3	13 TON	20,528.75
RTU #4	15 TON	23,687.25
RTU #5	8 TON	12,633.20
RTU #6	15 TON	23,687.25
RTU #7	15 TON	23,687.25
RTU #8	15 TON	23,687.25
RTU #9	13 TON	20,528.75
RTU#10	6 TON	<u>9,474.90</u>
	TOTAL:	183,181.00

ARMSTRONG

SUBMITTAL

Series 4030

8x6x13

Centerline Disc. End Suction Basemounted Pump

Project Number: cf53106

Name:

Reference:

Location:

Engineer:

Contractor:

Representative: stoermer-anderson inc.

3818 red bank rd, cincinnati, ohio

Phone: 513-527-2300, Fax: 513-527-2306

Order No:

Date:

Submitted by: dan lyons

Date: 10/5/2006

Approved by:

Date:

PUMP DESIGN DATA

Tag Num: SHWP-301,302
 Service: Secondary hot water
 Location:
 No. of Pumps: 2
 Capacity: 1120 usgpm
 Head: 95 ft
 Piping: Single
 Suction Pressure: 0 ft
 Liquid: Water
 Op. Temperature: 70 °F
 Viscosity: 31 ssu
 Sp.Gravity: 1.00
 Suction Size: 8 in
 Discharge Size: 6 in

MOTOR DESIGN DATA

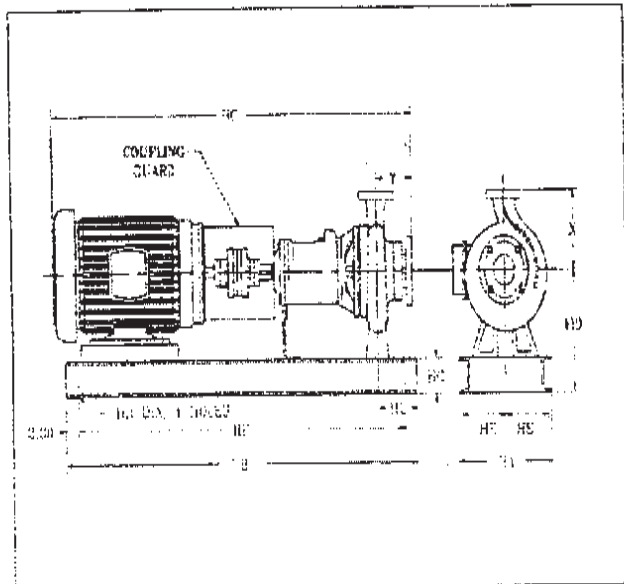
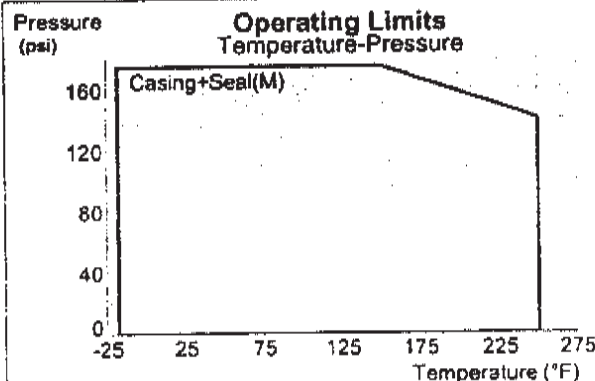
Motor Supplier: Factory Choice *Baldor*
 Motor Size: 50 hp @ 1800 rpm
 Frame Size: 326T
 Enclosure: ODP
 Cycle/Phase/Voltage: 60/3/460
 Motor Eff: NEMA Premium
 Insulation: Class "B" Insulation (266.0 °F)
 Starter Config: DOL
 Full Load/Starting (A) 65.0 / 362.7

MATERIALS OF CONSTRUCTION

Construction BF (Bronze Fitted)
 ANSI Flange Rating 125 lb. (Cast Iron)
 Connection (Suct/Dis) Flanged/Flanged
 Impeller Bronze (B584-844)
 Casing Cast Iron (A48-30)
 Casing Gasket Confined Non-Asbestos Fiber
 Bearing Frame Cast Iron (A48-30)
 Bearings Anti-Friction Grease Lubricated
 Pump Shaft Carbon Steel
 Shaft Sleeve Stainless Steel

MECHANICAL SEAL DESIGN DATA

Manufacturer Armstrong
 Manu. Code [21A] 21A
 Seal Type Inside Unbalanced
 Rotating Face Carbon
 Stationary Seat Ceramic
 Secondary Seal EPDM
 Springs Stainless Steel
 Rotating Hardware Stainless Steel



DIMENSIONAL DATA (in, lbs, hp) NOT for CONSTRUCTION

HA	HB	HC	HD	HE	HF	HG	HH	HL	X	Y	M.Wgt	P.Wgt	Wgt.
19	48	48.41	16	8.88	44	4	0.75	4.5	16	4	415	530	945



ARMSTRONG

SUBMITTAL

Series 4030
8x6x13
Centerline Disc. End Suction Basemounted Pump

Head
(ft)

Series 4030
8x6x13 @ 1770 rpm

PT110-1-0

--- Admin Data ---

Tag Num: SHWP-301.302
Service: Secondary hot water
Location:

--- Motor Data ---

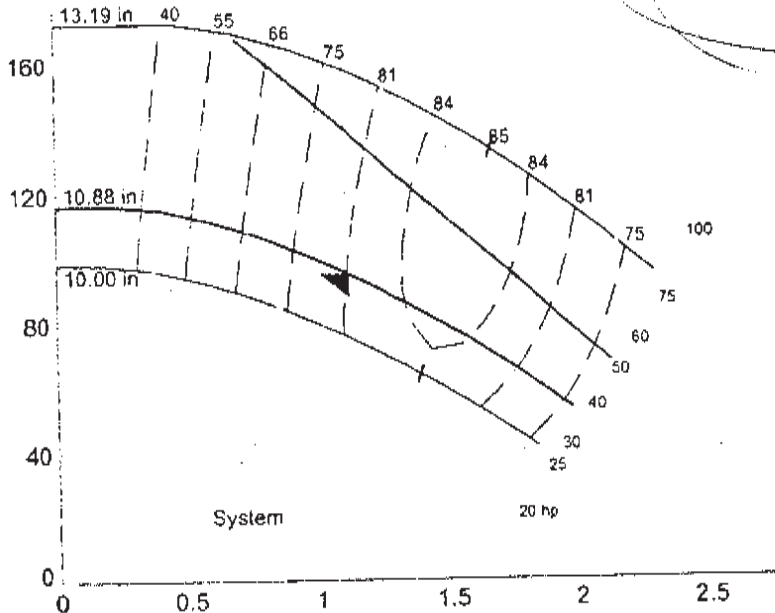
Motor Size: 50 hp
Motor Speed: 1800 rpm

--- Design Duty Point ---

Flow: 1120 usgpm
Head: 95 ft
Impeller: 10.88 in

--- Performance Data ---

- NPSHR: 10.3 ft
- Eff. @ Design: 80.23 %
- BHP @ Design: 33.49 hp
- %Mtr Safety: 49.29%
- BEP @ Design Imp.:
83.75 % @ 1476.1 usgpm
- Impeller Max BHP @ Flow:
36.17 hp @ 1913.7 usgpm
- %max imp. range: 27.55 %
- Outlet Velocity: 12.44 ft/s



Water, sg= 1.00

Flow (1,000 usgpm)

ARMSTRONG

SUBMITTAL

Series 4030

5x4x10

Centerline Disc. End Suction Basemounted Pump

Project Number: cf53106

Name:

Reference:

Location:

Engineer:

Contractor:

Representative: stoermer-anderson inc.

3818 red bank rd, cincinnati, ohio

Phone: 513-527-2300, Fax: 513-527-2306

Order No:

Date:

Submitted by: dan lyons

Date: 10/5/2006

Approved by:

Date:

PUMP DESIGN DATA

Tag Num: SHWP-303
 Service: Hot water inter conn
 Location: 
 No. of Pumps: 1
 Capacity: 560 usgpm
 Head: 60 ft
 Piping: Single
 Suction Pressure: 0 ft
 Liquid: Water
 Op. Temperature: 70 °F
 Viscosity: 31 ssu
 Sp.Gravity: 1.00
 Suction Size: 5 in
 Discharge Size: 4 in

MOTOR DESIGN DATA

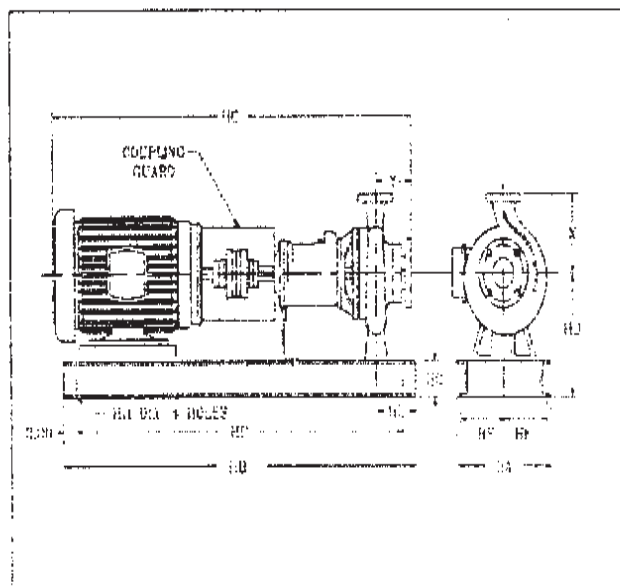
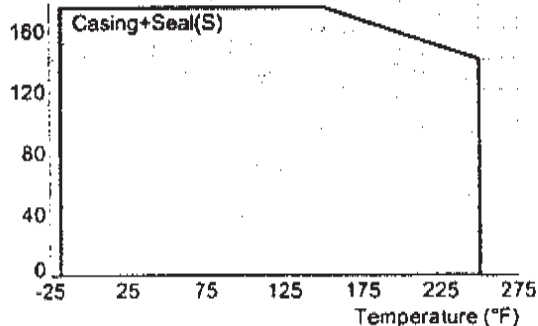
Motor Supplier: Factory Choice *Baldor*
 Motor Size: 15 hp @ 1800 rpm
 Frame Size: 254T
 Enclosure: ODP
 Cycle/Phase/Voltage: 60/3/460
 Motor Eff: NEMA Premium
 Insulation: Class "B" Insulation (266.0 °F)
 Starter Config: DOL
 Full Load/Starting (A) 21.0 / 115.9

MECHANICAL SEAL DESIGN DATA

Manufacturer: Armstrong
 Manu. Code [21A] 21A
 Seal Type: Inside Unbalanced
 Rotating Face: Carbon
 Stationary Seat: Ceramic
 Secondary Seal: EPDM
 Springs: Stainless Steel
 Rotating Hardware: Stainless Steel

MATERIALS OF CONSTRUCTION

Construction: BF (Bronze Fitted)
 ANSI Flange Rating: 125 lb. (Cast Iron)
 Connection (Suct/Dis): Lugged/Flanged
 Impeller: Bronze (B584-844)
 Casing: Cast Iron (A48-30)
 Casing Gasket: Confined Non-Asbestos Fiber
 Bearing Frame: Cast Iron (A48-30)
 Bearings: Anti-Friction Grease Lubricated
 Pump Shaft: Carbon Steel
 Shaft Sleeve: Stainless Steel

Pressure
(psi)Operating Limits
Temperature-Pressure

DIMENSIONAL DATA (in, lbs, hp) NOT for CONSTRUCTION

HA	HB	HC	HD	HE	HF	HG	HH	HL	X	Y	M.Wgt	P.Wgt	Wgt.
16	40	38.45	13	7.38	36	3	0.75	4.5	12.5	4	150	190	340

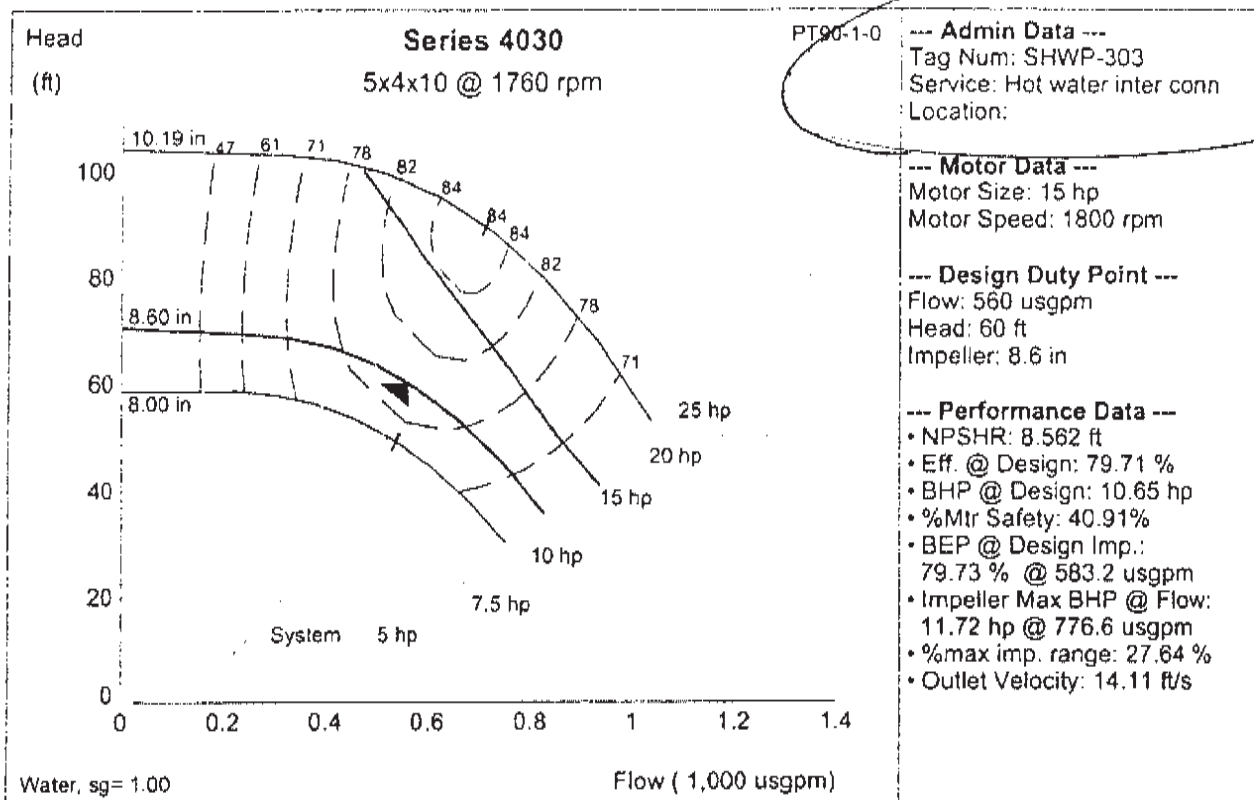


ARMSTRONG
SUBMITTAL

Series 4030

5x4x10

Centerline Disc. End Suction Basemounted Pump



ARMSTRONG

SUBMITTAL

Series 4030

8x6x13

Centerline Disc. End Suction Basemounted Pump

Project Number: cf53106

Name:

Reference:

Location:

Engineer:

Contractor:

Representative: stoerner-anderson inc.

3818 red bank rd, cincinnati, ohio

Phone: 513-527-2300, Fax: 513-527-2306

Order No:

Date:

Submitted by: dan lyons

Date: 10/5/2006

Approved by:

Date:

PUMP DESIGN DATA

Tag Num: CHWP-301,302,303
 Service: Primary cw
 Location:
 No. of Pumps: 3
 Capacity: 1400 usgpm
 Head: 95 ft
 Piping: Single
 Suction Pressure: 0 ft
 Liquid: Water
 Op. Temperature: 70 °F
 Viscosity: 31 ssu
 Sp.Gravity: 1.00
 Suction Size: 8 in
 Discharge Size: 6 in

MOTOR DESIGN DATA

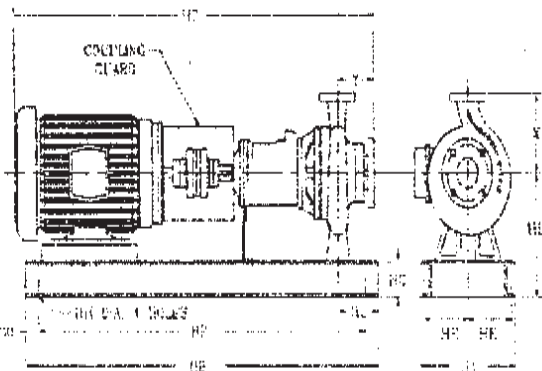
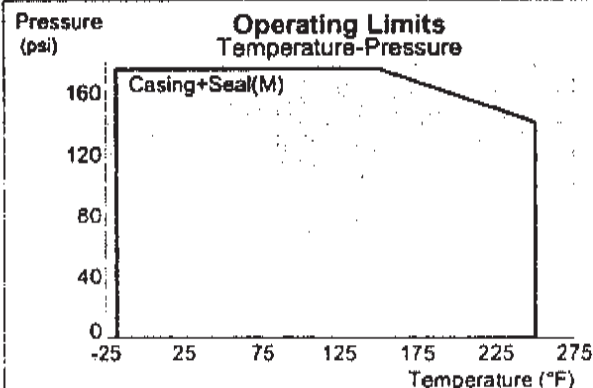
Motor Supplier: Factory Choice **Baldor**
 Motor Size: 50 hp @ 1800 rpm
 Frame Size: 326T
 Enclosure: ODP
 Cycle/Phase/Voltage: 60/3/460
 Motor Eff: NEMA Premium
 Insulation: Class "B" Insulation (266.0 °F)
 Starter Config: DOL
 Full Load/Starting (A) 65.0 / 362.7

MECHANICAL SEAL DESIGN DATA

Manufacturer: Armstrong
 Manu. Code [21A] 21A
 Seal Type: Inside Unbalanced
 Rotating Face: Carbon
 Stationary Seat: Ceramic
 Secondary Seal: EPDM
 Springs: Stainless Steel
 Rotating Hardware: Stainless Steel

MATERIALS OF CONSTRUCTION

Construction: BF (Bronze Fitted)
 ANSI Flange Rating: 125 lb. (Cast Iron)
 Connection (Suct/Dis): Flanged/Flanged
 Impeller: Bronze (B584-844)
 Casing: Cast Iron (A48-30)
 Casing Gasket: Confined Non-Asbestos Fiber
 Bearing Frame: Cast Iron (A48-30)
 Bearings: Anti-Friction Grease Lubricated
 Pump Shaft: Carbon Steel
 Shaft Sleeve: Stainless Steel



DIMENSIONAL DATA (in, lbs, hp) NOT for CONSTRUCTION

HA	HB	HC	HD	HE	HF	HG	HH	HL	X	Y	M.Wgt	P.Wgt	Wgt.
19	48	48.41	16	8.88	44	4	0.75	4.5	16	4	415	530	945

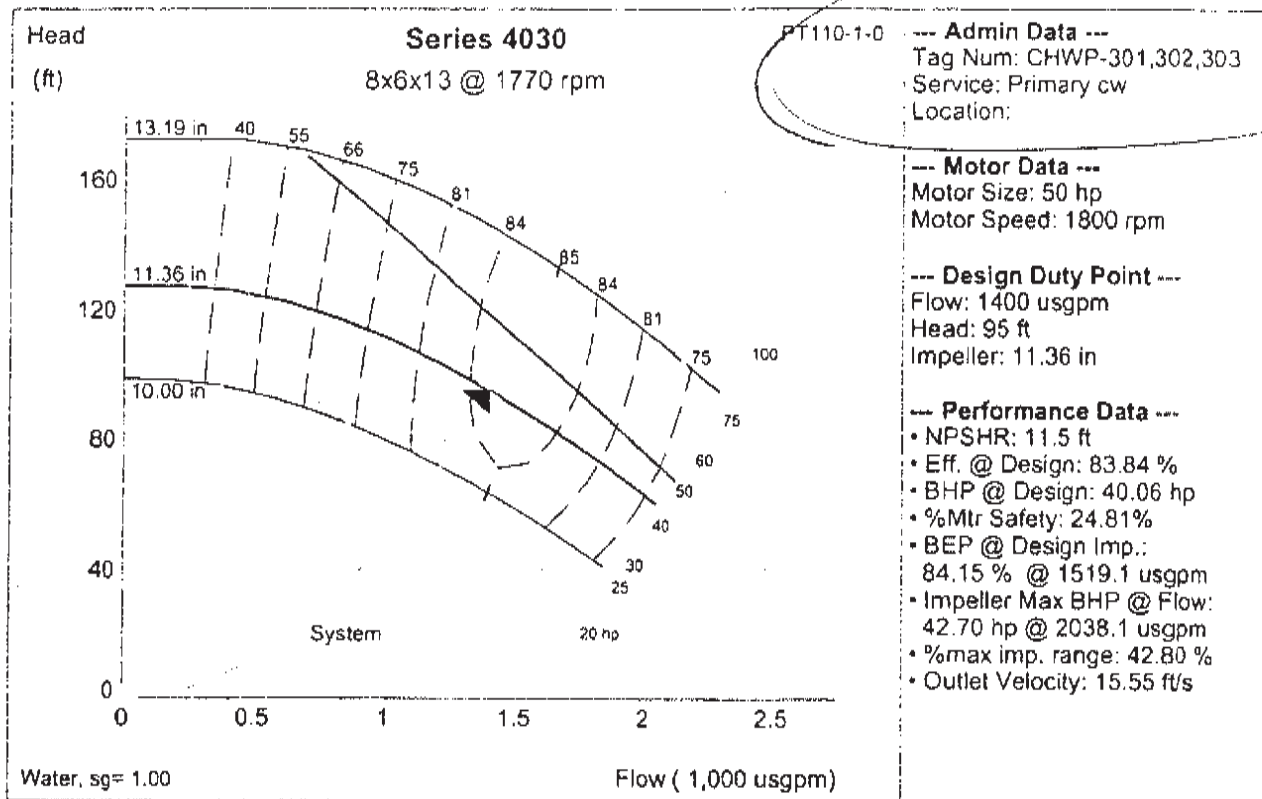


10/5/2006, 15:45:59, dan lyons, stoerner-anderson inc., 513-527-2300, Fax: 513-527-2306

ARMSTRONG
SUBMITTAL

Series 4030
8x6x13

Centerline Disc. End Suction Basemounted Pump



ARMSTRONG

SUBMITTAL

Series 4600
8x6x12.5M
Horizontal Split Case Pump

Project Number: cf53106

Name:

Reference:

Location:

Engineer:

Contractor:

Representative: stoermer-anderson inc.

3818 red bank rd, cincinnati, ohio

Phone: 513-527-2300, Fax: 513-527-2306

Order No:

Date:

Submitted by: dan lyons

Date: 10/5/2006

Approved by:

Date:

PUMP DESIGN DATA

Tag Num: SCHWP-301,302,303
Service: Secondary cw
Location:
No. of Pumps: 3
Capacity: 1620 usgpm
Head: 85 ft
Piping: Single
Suction Pressure: 0 ft
Liquid: Water
Op. Temperature: 70 °F
Viscosity: 31 ssu
Sp.Gravity: 1.00
Suction Size: 8 in
Discharge Size: 6 in

MOTOR DESIGN DATA

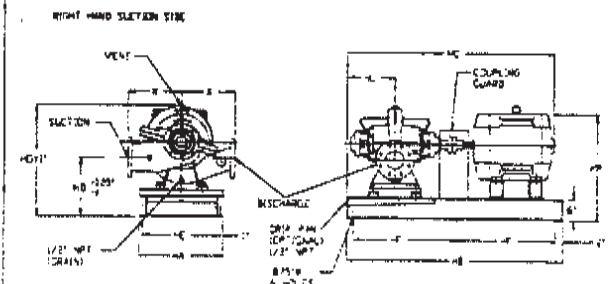
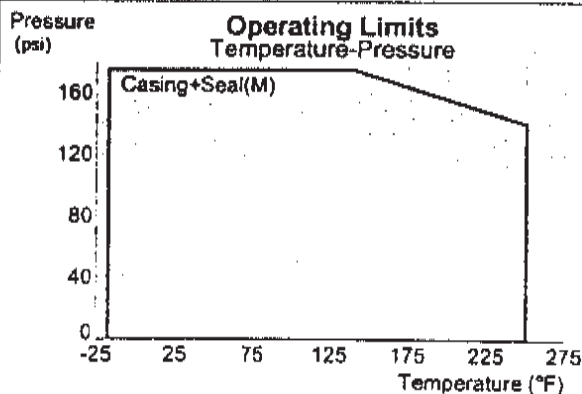
Motor Supplier: Factory Choice *Baldor*
Motor Size: 60 hp @ 1800 rpm
Frame Size: 364T
Enclosure: ODP
Cycle/Phase/Voltage: 60/3/460
Motor Eff: NEMA Premium
Insulation: Class "B" Insulation (266.0 °F)
Starter Config: DOL
Full Load/Starting (A) 77.0 / 435.1

MECHANICAL SEAL DESIGN DATA

Manufacturer: Armstrong
Manu. Code [21A] 21A
Seal Type: Inside Unbalanced
Rotating Face: Carbon
Stationary Seat: Ceramic
Secondary Seal: EPDM
Springs: Stainless Steel
Rotating Hardware: Stainless Steel

MATERIALS OF CONSTRUCTION

Construction: BF (Bronze Fitted)
Suct/Disc Flange: ANSI 125lb/125lb Cast Iron
Casing: Cast Iron (A48-30)
Impeller: Bronze (B584-844)
Flush Line: Copper
Wear Rings: Bronze (B584-936)
Pump Shaft: Carbon Steel (C1045-100)
Shaft Sleeve: Bronze (B584-932)
Casing Gasket: Velotherm (Non-Asbestos fiber)
Suction Side: Right Hand

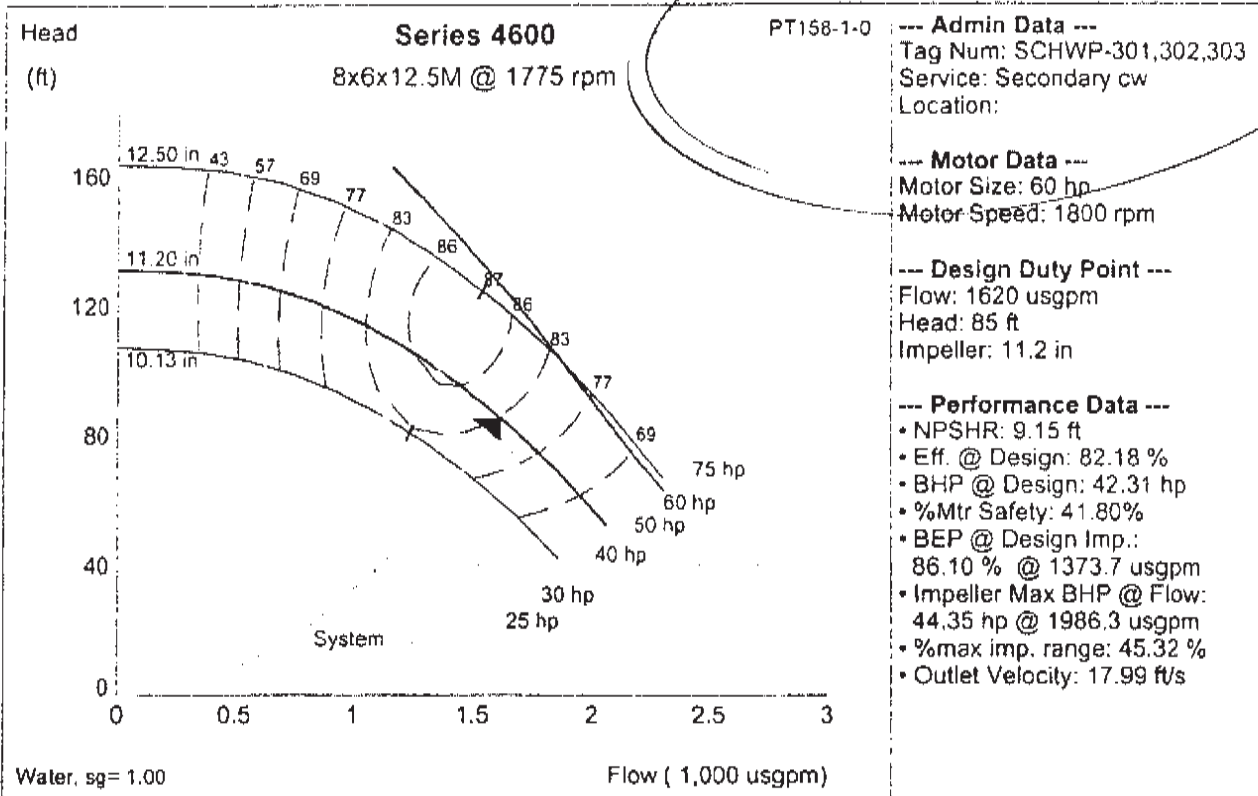
**DIMENSIONAL DATA (in, lbs, hp) NOT for CONSTRUCTION**

Frame	HA	HB	HC(max)	HE	HF	HG	HL	HM	HD	HO	X	P.Wgt	M.Wgt	Wgt.
364	19	64	63.13	17.75	30	4	13.5	25.25	10.75	25.44	15	870	580	1450



ARMSTRONG

SUBMITTAL Series 4600
8x6x12.5M Horizontal Split Case Pump



ARMSTRONG

SUBMITTAL

Series 4030
8x6x13

Centerline Disc. End Suction Basemounted Pump

Project Number: cf53106

Name:

Reference:

Location:

Engineer:

Contractor:

Representative: stoermer-anderson inc.
3818 red bank rd, cincinnati, ohio

Phone: 513-527-2300, Fax: 513-527-2306

Order No:

Date:

Submitted by: dan lyons

Date: 10/5/2006

Approved by:

Date:

PUMP DESIGN DATA

Tag Num: P-205,206,207
Service:
Location:
No. of Pumps: 3
Capacity: 1300 usgpm
Head: 120 ft
Piping: Single
Suction Pressure: 0 ft
Liquid: Water
Op. Temperature: 70 °F
Viscosity: 31 ssu
Sp.Gravity: 1.00
Suction Size: 8 in
Discharge Size: 6 in

MOTOR DESIGN DATA

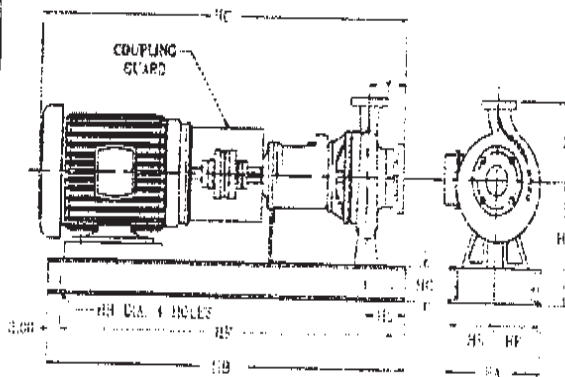
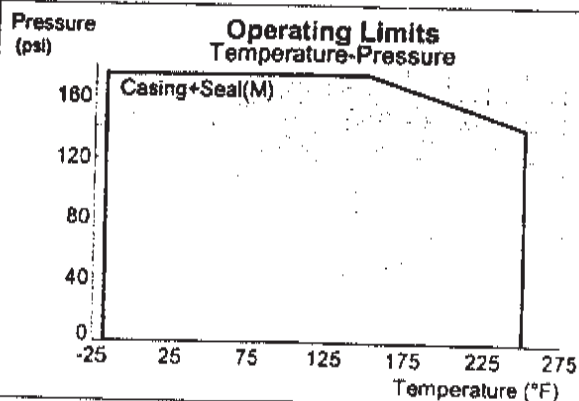
Motor Supplier: Factory Choice *3A12K*
Motor Size: 60 hp @ 1800 rpm
Frame Size: 364T
Enclosure: ODP
Cycle/Phase/Voltage: 60/3/460
Motor Eff: NEMA Premium
Insulation: Class "B" Insulation (266.0 °F)
Starter Config: DOL
Full Load/Starting (A) 77.0 / 435.1

MECHANICAL SEAL DESIGN DATA

Manufacturer: Armstrong
Manu. Code [21A] 21A
Seal Type: Inside Unbalanced
Rotating Face: Carbon
Stationary Seat: Ceramic
Secondary Seal: EPDM
Springs: Stainless Steel
Rotating Hardware: Stainless Steel

MATERIALS OF CONSTRUCTION

Construction: BF (Bronze Fitted)
ANSI Flange Rating: 125 lb. (Cast Iron)
Connection (Suct/Dis): Flanged/Flanged
Impeller: Bronze (B584-844)
Casing: Cast Iron (A48-30)
Casing Gasket: Confined Non-Asbestos Fiber
Bearing Frame: Cast Iron (A48-30)
Bearings: Anti-Friction Grease Lubricated
Pump Shaft: Carbon Steel
Shaft Sleeve: Stainless Steel



DIMENSIONAL DATA (in, lbs, hp) NOT for CONSTRUCTION

HA	HB	HC	HD	HE	HF	HG	HH	HL	X	Y	M.Wgt	P.Wgt	Wgt.
19	58	50	18	8.88	27	4	0.75	4.5	18	4	580	530	1110

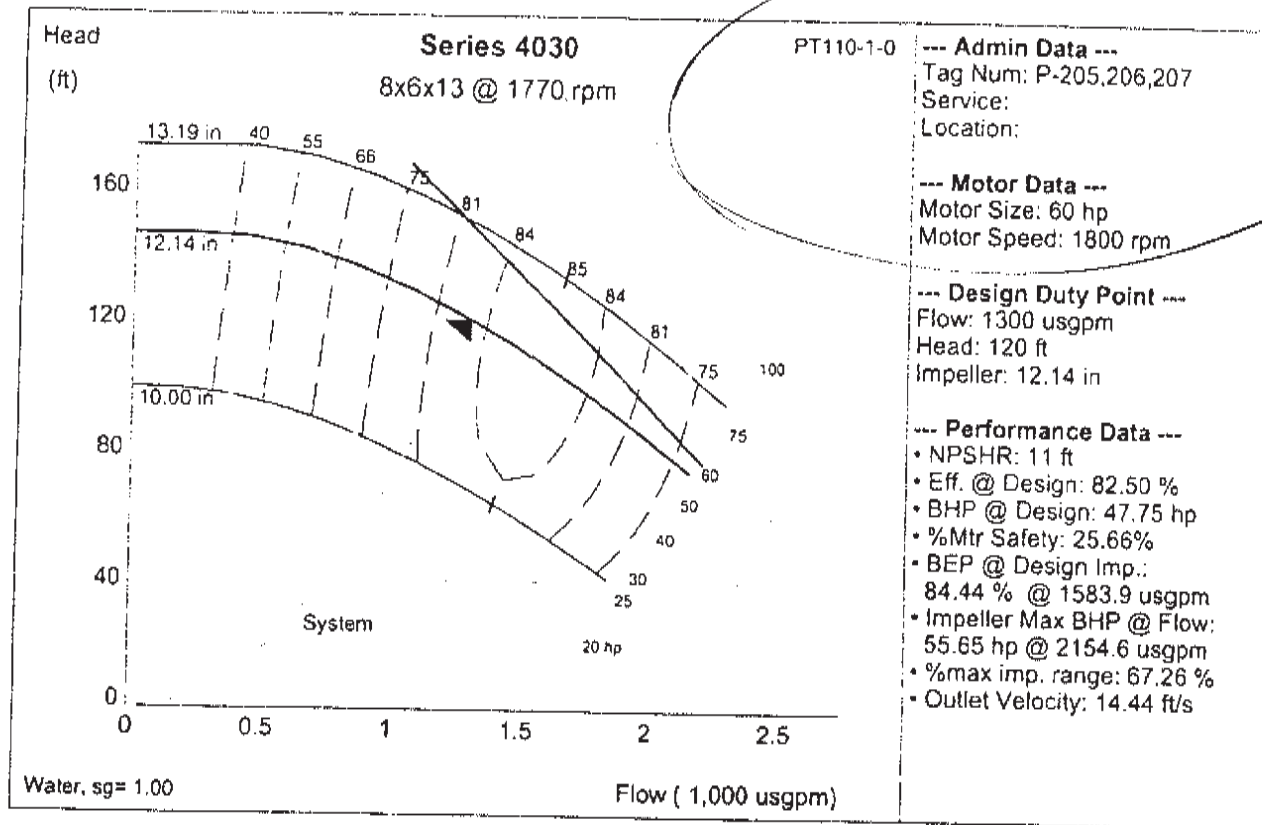


10/5/2006, 15:45:58, dan lyons, stoermer-anderson inc., 513-527-2300, Fax: 513-527-2306

ARMSTRONG
SUBMITTAL

Series 4030
8x6x13

Centerline Disc. End Suction Basemounted Pump



2

Submittal to:

Peck, Hannaford and Briggs

Project:Cincinnati Financial
Tower # 3 Expansion
CT-301, 302, 303**Engineer:**

Heapy Engineering

Quote No. (Version): LISA HATFIELD_060613_135931953 (1)

August 21, 2006

NC Tower

TOWER MODEL	PERFORMANCE CONDITIONS	MOTOR DATA <i>Emerson</i>	TOWER DIMENSIONS	WEIGHTS
Quantity of (3) Marley NC Class model NC8306K factory assembled 1-Cell crossflow cooling tower(s)	Per 1-cell tower: 1400.0 GPM 100.0 F Hot Water 85.0 F Cold Water 78 F Entering WB	50 HP 1 speed / 1 wind 3 phase / 60 hz / 230/460v 1.15sf / TEFC 1800 RPM Premium Efficiency ✓ Inverter duty namplated	Each cell: (without options) Length 11' - 10 3/4" Width 19' - 10" Height 12' - 11 3/4" Per 1-cell tower: (with options) Length 12' - 7 15/16" Width 19' - 10" Height 15' - 2 1/4"	Per cell: Shipping: 12,231 lb. Operating: 24,044 lb. Per 1-cell tower: Shipping: 12,231 lb. Operating: 24,044 lb.

Quantities shown below are per tower.

Base Tower Construction/Equipment:

235 galvanized steel casing and framing.
Series 304 stainless steel welded distribution basins and distribution basin covers.
Series 304 stainless steel welded collection basin.
Structure and anchorage designed for wind load of 30.0 psf.
Marley designed Geareducer® with 5-year warranty.
15 mil PVC film fill with integral louvers designed and manufactured by Marley.
Triple-pass 17 mil PVC drift eliminators designed and manufactured by Marley.
Drift rate guaranteed to be no greater than .005% of the design flow rate.
CTI certification per STD-201.

Collection Basin Connections and Accessories:

(1) 12 inch diameter bottom outlet(s) with trash screen(s)

Distribution Basin Inlet and Accessories:

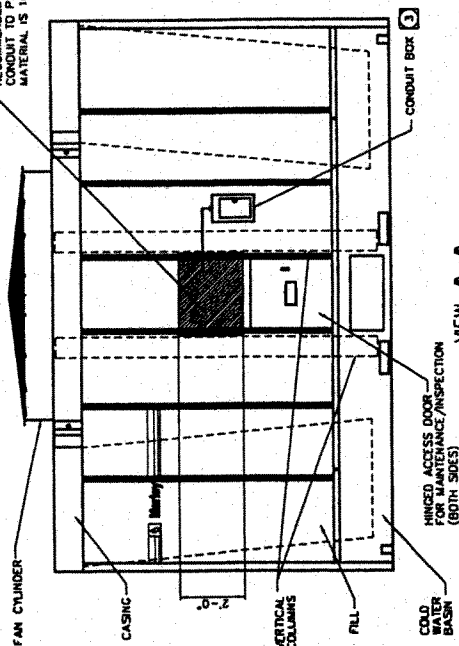
(1) 10 inch inlet connection with internal piping to hot water distribution basins

Maintenance & Maintenance Access Features:

External lube line with dipstick
Full face air inlet screens
Convenient access to the collection basin and plenum area is provided via an access door located on each endwall
Plenum walkway in each cell
Perimeter handrail, kneerail & toeboard
(1) End wall ladder for CT-301 only

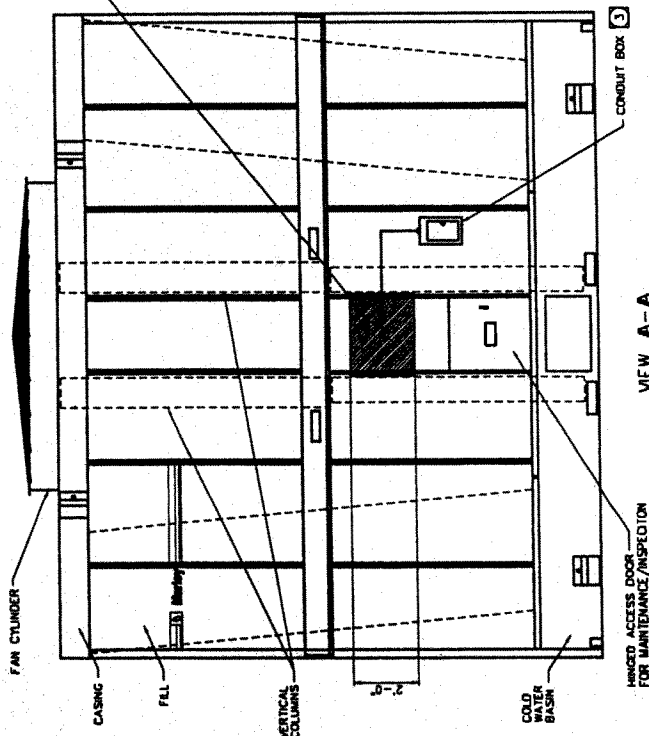
CT-301,302,303

RECOMMENDED LOCATION FOR CONDUIT TO PASS THROUGH CASING MATERIAL IS 16 GA. (1/16" THICK).

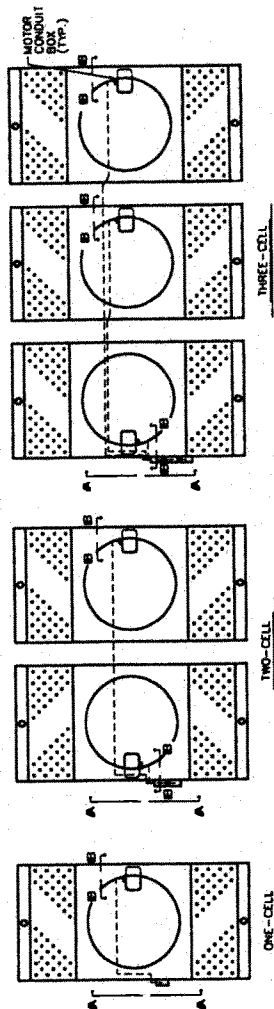


VIEW A-A
MODELS NC301 THRU NC309

RECOMMENDED LOCATION FOR CONDUIT TO PASS THROUGH CASING MATERIAL IS 16 GA. (1/16" THICK)



VIEW A-A
MODELS NC310 THRU NC312

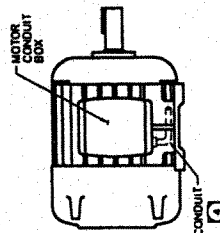


CONDUIT INSTALLATION KEY PLANS

GENERAL NOTES

1. ALL CONDUIT, CONNECTIONS, SUPPORTING CLIPS, HANGERS, AND SAFETY SWITCHES ARE SUPPLIED BY OTHERS.
2. ALL WIRING MUST CONFORM TO LOCAL AND NATIONAL CODES.
3. NON-FUSED SAFETY DISCONNECT SWITCHES ARE RECOMMENDED. THESE ARE FOR USE WITH MOTORS, SIX-POLY FOR TWO SPEED MOTORS, WITH VOLTAGE AND HORSEPOWER RATED FOR FAN MOTOR LOCATED IN A NEMA 3 OR 4 WEATHERPROOF ENCLOSURE. ATTACH ENCLOSURE TO EXTERIOR OF TOWER USING VERTICAL FLANGES OF CASING. CONDUIT BOX MUST BE LOCATED AT A LOWER ELEVATION THAN MOTOR.
4. CONDUIT SHOULD BE SUPPORTED APPROXIMATELY EVERY TEN FEET, EXCEPT WHERE NOTED BELOW. IMPORTANT: CONDUIT MUST BE PITCHED DOWN TO ALLOW CONDENSATE TO DRAIN. CONDENSATE MUST BE DRAINAGE AND MUST BE WATER TIGHT. CONDUIT SHOULD BE RIGID EXCEPT AS NOTED BELOW.
 - A) APPROXIMATELY 2 FEET OF FLEXIBLE STEEL CONDUIT (SEAL HOOT OR EQUIVALENT) SHOULD BE USED AT THE MOTOR CONDUIT BOX.
 - B) A CONDUIT SUPPORT SHOULD BE LOCATED WITHIN 3 FEET OF ALL CONDUIT BOXES.
 - C) IF MOISTURE CANNOT DRAIN OUT OF MOTOR CONDUIT BOX, A SMALL (3/16" - 1/4") DRAIN HOLE MUST BE DRILLED IN BOTTOM OF CONDUIT BOX.
5. CONDUIT MAY BE SUPPORTED ON THE SIDE OF THE INTERIOR BOX BEAMS OR SUSPENDED FROM BOTTOM OF THE SEAL. SEE KEY PLANS AND VIEW A-A FOR LOCATION AT WHICH TO RUN CONDUIT THROUGH TOWER CASING.
6. HOLES CUT IN CASING FOR CONDUIT SHOULD NOT BE FLAME CUT, AND SHOULD NOT BE LARGER THAN NECESSARY TO ACCOMMODATE CONDUIT FITTINGS. SEAL HOLES WITH WATERPROOF CAULKING.
7. TOWERS WITH NO LADDER AND HANDRAIL:
 - A) ONE CELL TOWERS MAY HAVE DISCONNECT SWITCH LOCATED ON MOTOR FACE OF TOWER.
 - B) MULTI-CELL TOWERS SHOULD HAVE DISCONNECT SWITCHES LOCATED TOGETHER WITH ACCESS DOOR FOR MAINTENANCE FOR EACH TOWER. SWITCHES SHOULD BE LOCATED THROUGH CASING AND ACROSS ADJACENT CELLS AS SHOWN ON INSTALLATION KEY PLAN.
8. TOWERS WITH LADDER AND HANDRAIL:

DISCONNECT SWITCHES SHOULD BE LOCATED ON LADDER SIDE OF TOWER FOR EASE OF ACCESSIBILITY. SEPARATE CONDUIT IS REQUIRED FOR EACH MOTOR. ROUTE CONDUIT THROUGH CASING A AND ACROSS ADJACENT CELLS AS SHOWN IN INSTALLATION KEY PLAN.
9. ALL OF THE DIMENSIONS SHOWN ARE IN INCHES UNLESS OTHERWISE NOTED.



SECTION B-B

1-P UNITS

RECOMMENDED CONDUIT INSTALLATION			
UNIT NUMBER	DATE	BY	REVISION
1448	09/07/2001	J.H.	1-28 100-4882 A
1448	09/07/2001	J.H.	1-28 100-4882 A
1448	09/07/2001	J.H.	1-28 100-4882 A
1448	09/07/2001	J.H.	1-28 100-4882 A

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Fan

MARK: EF-301

ENGINEERING DATA

Approx. Fan Weight (lb)	Class	Max. T Motor Frame Size	WFR ² (lb-ft ²)
5,660	I	505	6,860

**Weight does NOT include motor, drives, or accessories.

Motor Location	Drive Type
X	Constant

CONFIGURATION

Arrangement	Rotation	Discharge Position	Material Type
3	CCW	TH	Steel

INSTALLATION

Inlet Conditions	Outlet Conditions
Standard	Standard

MOTOR SPECS

Size (hp)	RPM	VIC/P	Enclosure	Motor Frame Size
125	1725	460/60/3	ODP	405

AFDW Series 21 Airfoil Double Width

Tag: EF-301

STANDARD CONSTRUCTION FEATURES

HOUSING: Series 21 class I and II fans feature Perma-Lock construction on sizes 18-49 and continuously welded steel housing on sizes 54-73 and all class III fans • Unpunched outlet flange standard on class I and II sizes 33-73, all class III fans, and all downblast fans (DB) • All structural parts phosphatized and coated with Permatector

BEARINGS, SHAFT, AND WHEEL: Heavy duty, self-aligning ball or roller pillow block bearings • Polished, solid steel shafts • Fully welded centrifugal wheel

Structural or Inertia Base, required for this arrangement.

SELECTED OPTIONS & ACCESSORIES

Bearings - Split Pillow Block
 Drain Conn. - 1" Pipe Thread w/o Plug
 Flange - Outlet, Unpunched
 Guard - Belt, TE, Steel
 Guard - Inlet
 Inertia Base, Free Standing Isolator w/ 2" Defl., Base Field Mntd
 Permatector Coating on Steel Components
 Motor Slide Base
 Motor Service Factor of 1.15 or greater
 Class B Motor Insulation or Greater
 Drive Service Factor of 1.5 - Standard
 UL/cUL-705 - "Power Ventilators"
 Motor Compatible for use w/ VFD
 Premium Efficient Motor exceeds EPACT and NEMA 1210

- PROVIDE w/ DOUBLE WALL AIRFOIL

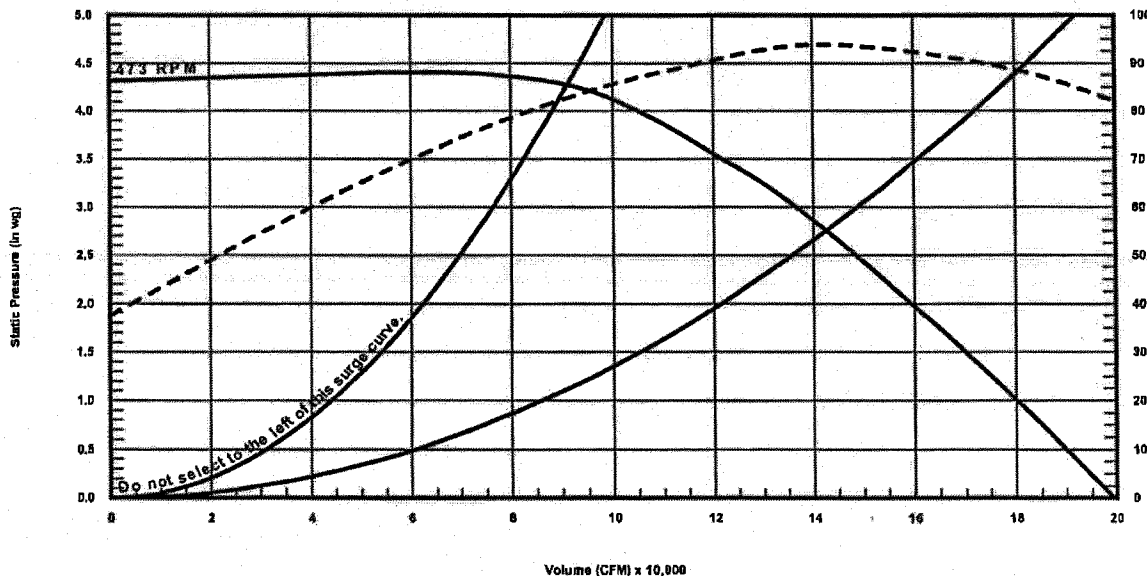
PERFORMANCE (Elevation ft = 0, Airstream Temperature F = 70, Start Up Temperature F = 70)

Qty	Model	Volume (CFM)	SP (in wg)	TS (ft/min)	OV (ft/min)	FRPM	Max Class FRPM	Operating Power (hp)	SE %
1	73-AFDW-21	142,500	2.75	9,040.0	2,584.0	473	549	93.63	68

SOUND

Inlet / Outlet Sound Power by Octave Band								LwA	dBA
63	125	250	500	1000	2000	4000	8000		
106	101	94	94	89	84	81	77	95	84
108	99	94	93	87	82	78	74	94	83

LwA - A weighted sound power level, based on ANSI S1.4. dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft.



Fan

MARK: EF-304

CUBE

Belt Drive Upblast Centrifugal Roof Exhaust Fan

Tag: EF-304

STANDARD CONSTRUCTION FEATURES

- Aluminum housing • Backward inclined aluminum wheel • Curb cap with prepunched mounting holes • Motor and drives isolated on shock mounts • Drain trough • Ball bearing motors • Adjustable motor pulley • Adjustable motor plate • Fan shaft mounted in ball bearing pillow blocks • Bearings meet or exceed temperature rating of fan • Static resistant belts • Corrosion resistant fasteners

SELECTED OPTIONS & ACCESSORIES

Switch - Nema-1, Toggle, Junction Box Mounted and Wired

Curb GPI-40-G14

Damper WD-100-PB-30x30, 460 VAC, Int Mnt.

B. Enamel - Color to be selected, Exterior of Fan Only

Bearings with Grease Fittings

Lifting Lugs

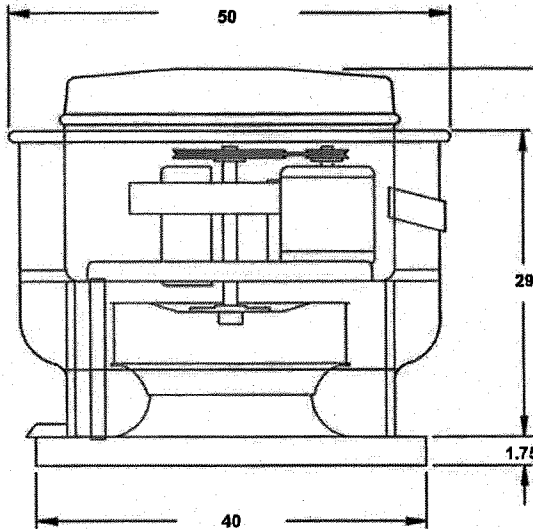
UL/cUL-705 - "Power Ventilators"

Drain Connection

Galvanized Birdscreen

Motor Compatible for use w/ VFD

Premium Efficient Motor exceeds EPACT and NEMA 1210



* May be greater depending on motor

NOTES: All dimensions shown are in units of inches

Fan weight is without accessories

DIMENSIONS

Approx. Fan Weight (lb)	Recommended Roof/Wall Opening (in)	Optional Damper (in)
313	32.5 x 32.5	30 x 30

PERFORMANCE (Elevation ft = 0, Airstream Temperature F = 70)

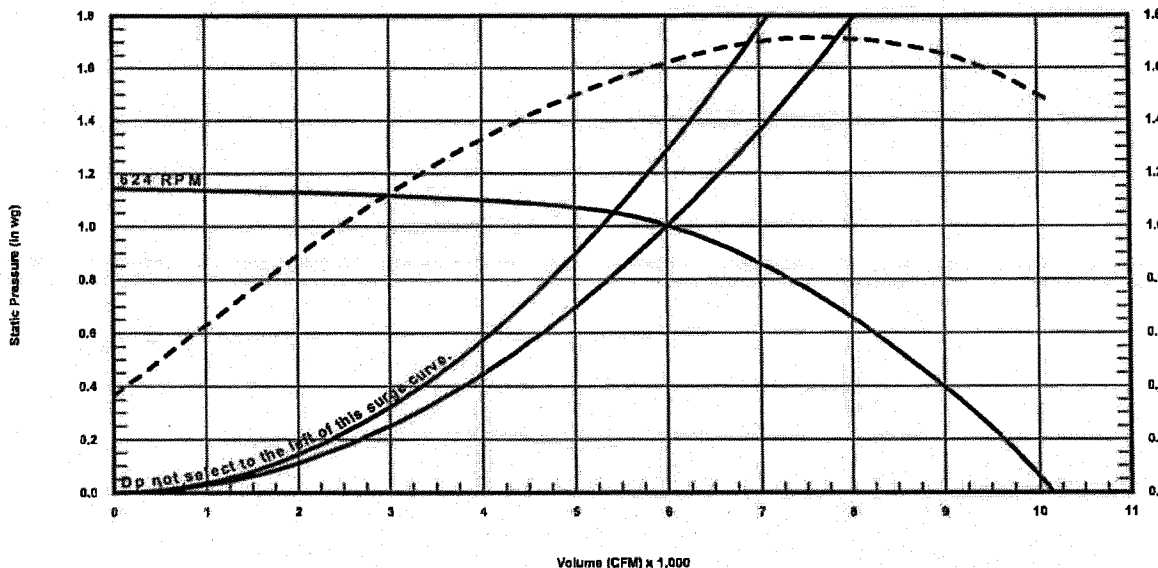
Qty	Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Motor Information					
						Size (hp)	V/C/P	Encl:	Motor RPM:	Windings	FLA (A)
1	CUBE-300-30	6,000	1	624	1.62	3	460/60/3	ODP	1725	1	4.8

SOUND

Inlet Sound Power by Octave Band								Lwa	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
78	83	77	71	69	65	60	57	75	64	13.4

FLA - Based on tables 150 or 148 of National Electrical Code 2002.

Lwa - A weighted sound power level, based on ANSI S1.4.
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft. Sones calculated using AMCA 301 at 5.0 ft.

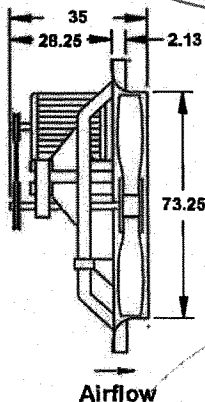
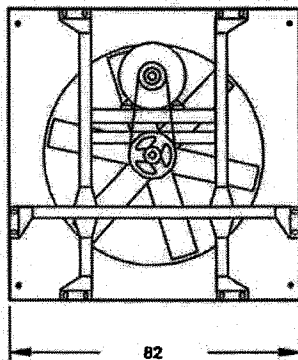


Fan

MARK: EF-305,306,307,308,309,310

SBE

Sidewall Belt Drive Exhaust Fan



Tag: EF-305,306,307,308,309,310

STANDARD CONSTRUCTION FEATURES

- Galvanized steel fan panel • Die formed, galvanized steel drive frame assembly • Fabricated steel propeller for Levels 1 and 2, welded and painted steel for Level 3 • Adjustable motor pulley • Ball bearing motors • Fan shaft mounted in ball bearing pillow blocks • Static resistant belts • Corrosion resistant fasteners

SELECTED OPTIONS & ACCESSORIES

- Damper VCD-20-PB-74x74, Rev. Flg., 460 VAC, Int Mnt.
- Permator - Gray, Coat Entire Fan & Fctry. Atchd. Acc's.
- Bearings with Grease Fittings
- CSA Labeled Motor
- Two Groove Pulley and Belt System
- OSHA Approved Motor Side Guard
- Motor Compatible for use w/ VFD
- Premium Efficient Motor exceeds EPACT and NEMA 1210

NOTES:

The panel size wall opening is to be coordinated with the General Contractor and the Mechanical Contractor due to engineer's change from the size shown on the fan schedule (which is an error).

NOTES: All dimensions shown are in units of inches

Fan weight is without accessories

DIMENSIONS

Approx. Fan Weight (lb)	Recommended Roof/Wall Opening (in)	Optional Damper (in)
1,050	74.5 x 74.5	74 x 74

PERFORMANCE (Elevation ft = 0, Airstream Temperature F = 70)

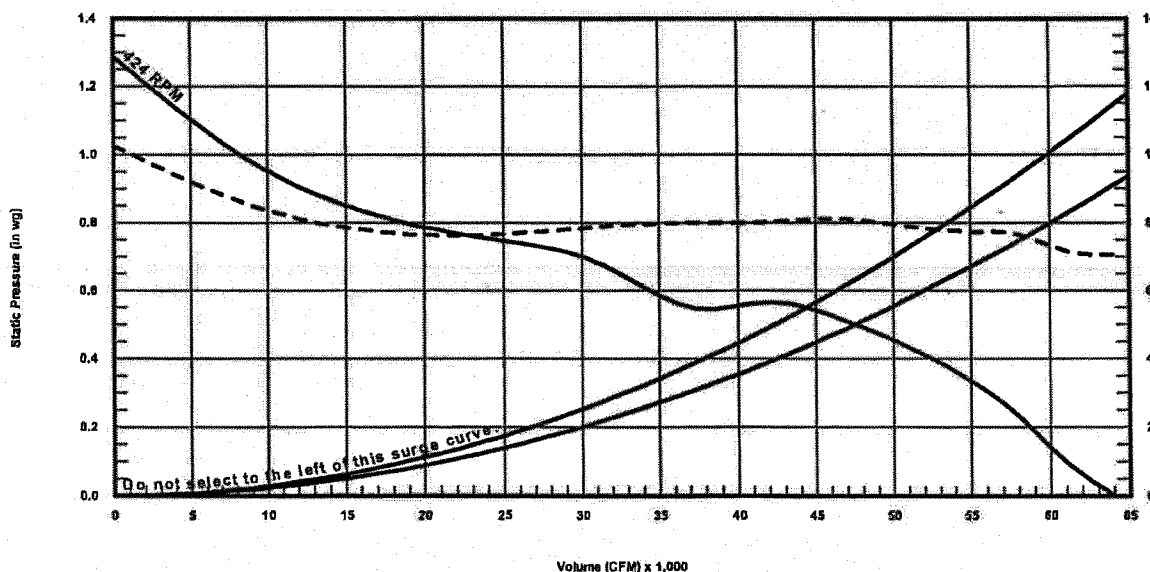
Qty	Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Motor Information					
						Size (hp)	V/C/P	Encl:	Motor RPM:	Windings	FLA (A)
6	SBE-3H72-150	47,500	0.5	424	8.07	15	460/60/3	ODP	1725	1	21.0

SOUND

Inlet Sound Power by Octave Band								Lwa	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
103	100	96	91	87	84	80	76	93	82	42

FLA - Based on tables 150 or 148 of National Electrical Code 2002.

Lwa - A weighted sound power level, based on ANSI S1.4.
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft. Sones calculated using AMCA 301 at 5.0 ft.





Greenheck 09/20/06

JOB: Cincinnati Financial Tower #3 Expansion BP #4

Fan

MARK: VF-301

ENGINEERING DATA

Approx. Fan Weight (lb)	Class	Max. T Motor Frame Size	WR ² (lb-ft ²)
3,640	II	404	3,000

**Weight does NOT include motor, drives, or accessories.

Motor Location	Drive Type
N/A	Constant

CONFIGURATION

Arrangement	Rotation	Discharge Position	Material Type
10	CW	TH	Steel

INSTALLATION

Inlet Conditions	Outlet Conditions
Standard	Standard

MOTOR SPECS

Reliance

Size (hp)	RPM	V/C/P	Enclosure	Motor Frame Size
75	1725	460/60/3	ODP	365

BISW Series 21 Backward Inclined Single Width

Tag: VF-301

STANDARD CONSTRUCTION FEATURES

HOUSING: Series 21 class I and II fans feature Perma-Lock construction on sizes 7-49 and continuously welded housing on sizes 54-73 and all class III fans • Inlet collars on Arr. 1, 9, 10 • Unpunched outlet flange standard on class I and II sizes 33-73, all class III fans, and all downblast fans (DB) • All structural steel parts phosphatized and coated with Permaetector

BEARINGS, SHAFT, AND WHEEL: Heavy duty, self-aligning ball or roller pillow block bearings • Polished, solid steel shafts • Fully welded centrifugal wheel

SELECTED OPTIONS & ACCESSORIES

Flange - Outlet, Unpunched
Heat Slinger
Inertia Base, Free Standing Isolator w/ 2" Defl., Base Field Mntd
Permaetector Coating on Steel Components
Motor Service Factor of 1.15 or greater
Class F Motor Insulation
Drive Service Factor of 1.5 - Standard
Weatherhood, Steel
UL/cUL-705 - "Power Ventilators"
Drain Conn. - 1" Pipe Thread w/o Plug
UL Power Ventilator for Smoke Control Systems
Access door - Bolted
Motor Compatible for use w/ VFD
High Temp. Shaft Seal
Bearings - Split Pillow Block
Energy Efficient Motor meets EPACT and NEMA 1210

*- 1.5 TIMES # REQUIRED
BELTS AS MINIMUM*

NOTES:

Single wall airfoil type fan is NOT rated for smoke evacuation. The backward inclined type fan is rated for smoke evacuation, so it has been selected in lieu of the single wall airfoil type fan.

PERFORMANCE (Elevation ft = 0, Airstream Temperature F = 70, Start Up Temperature F = 70)

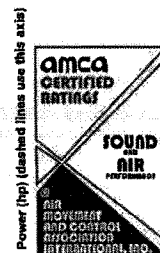
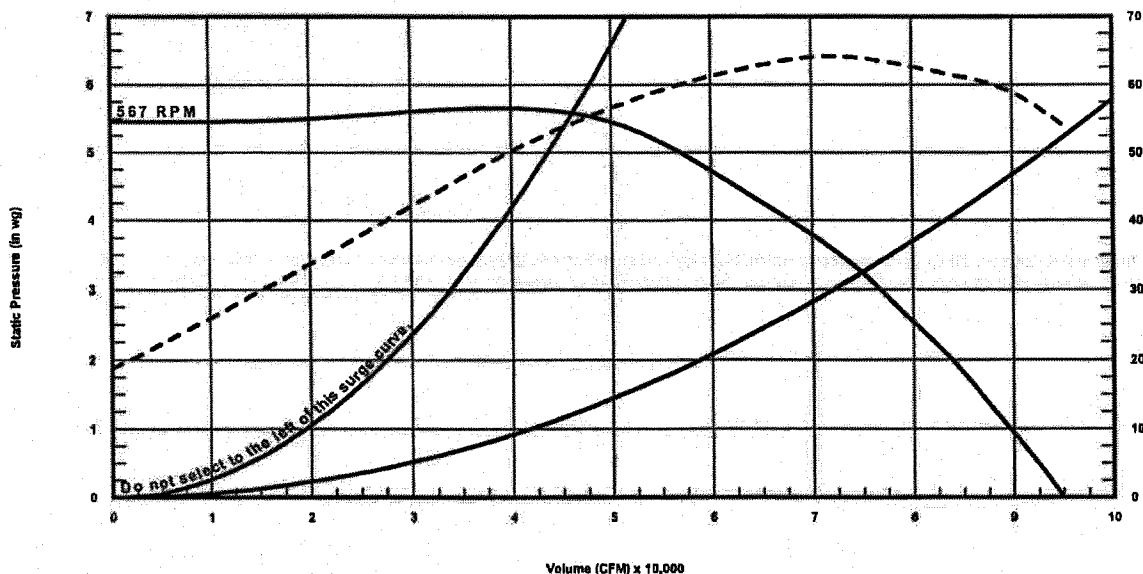
Drive Loss (%) 3

Qty	Model	Volume (CFM)	SP (in wg)	TS (ft/min)	OV (ft/min)	FRPM	Max Class FRPM	Operating Power (hp)	SE %
1	66-BISW-21	75,000	3.25	9,797.0	2,994.0	567	745	63.94	62

SOUND

Inlet / Outlet Sound Power by Octave Band									LwA	dBA
63	125	250	500	1000	2000	4000	8000			
108	103	94	92	89	83	79	75	94	83	
111	105	99	95	92	87	81	76	97	86	

LwA - A weighted sound power level, based on ANSI S1.4. dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft.



**Greenheck**

09/20/06

JOB: Cincinnati Financial Tower #3 Expansion BP #4

Fan

MARK: VF-302,303,304

ENGINEERING DATA

Approx. Fan Weight (lb)	Class	Max. T Motor Frame Size	WR ² (lb-ft ²)
1,700	II	445	1,438

**Weight does NOT include motor, drives, or accessories.

Motor Location
W

Drive Type
Constant

CONFIGURATION

Arrangement	Rotation	Material Type	Fan Orientation
1	CW	Steel	Horizontal

INSTALLATION

Connection	Plenum Discharge
N/A	N/A

MOTOR SPECS

Size (hp)	RPM	V/C/P	Enclosure	Motor Frame Size
125	1725	460/80/3	ODP	405

QEP Plenum Fan

Tag: VF-302,303,304

STANDARD CONSTRUCTION FEATURES

HOUSING: Heavy gauge, steel mounting frame with die formed flanges and welded corners • Inlet panel is heavy gauge steel with die formed flanges and welded corners • Structural parts are phosphatized and coated with Permatector

BEARINGS, SHAFT, AND WHEEL: Heavy duty, self-aligning ball or roller pillow block bearings • Polished, solid steel shafts • Fully welded, aluminum centrifugal wheel • 12 bladed construction • Airfoil blade profile

SELECTED OPTIONS & ACCESSORIES

Bearings - L10 Extended Life, 200,000 hours
Guard - Belt, TE, Steel
Permatector Coating on Steel Components
Motor Service Factor of 1.15 or greater
Class F Motor Insulation
Extended Lubrication Line Kit - Field Assembly
Drive Service Factor of 1.5 - Standard
Motor Slide Base
Inertia Base, Free Standing Isolator w/ 2" Defl., Base Field Mntd
CSA Labeled Motor
Motor Compatible for use w/ VFD
Premium Efficient Motor exceeds EPACT and NEMA 1210

PERFORMANCE (Elevation ft = 0, Airstream Temperature F = 70, Start Up Temperature F = 70)

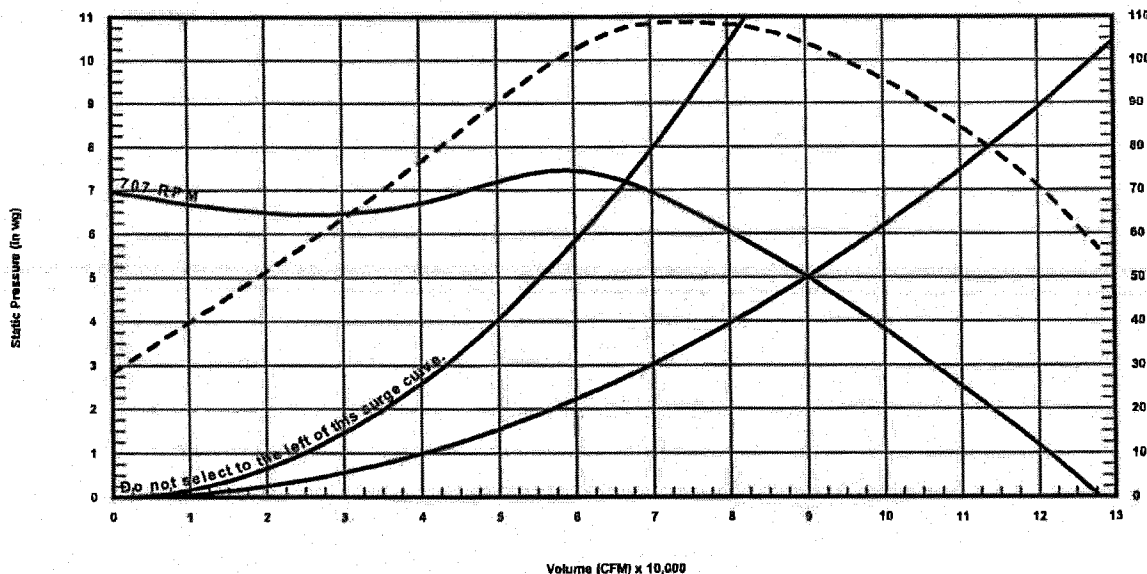
Drive Loss (%) 3

Qty	Model	Volume (CFM)	SP (in wg)	TS (ft/min)	OV (ft/min)	FRPM	Max Class FRPM	Operating Power (hp)	SE %
3	66-QEP-1-II	90,000	5	12,216.0	2,712.0	707	755	103.64	70

SOUND

Inlet / Outlet Sound Power by Octave Band									LwA	dBA
63	125	250	500	1000	2000	4000	8000			
94	102	94	92	85	81	79	77	93	82	
98	105	102	99	92	88	85	81	99	88	

LwA - A weighted sound power level, based on ANSI S1.4. dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft.



Power (hp) (dashed lines use this axis)





Greenheck 09/20/06

JOB: Cincinnati Financial Tower #3 Expansion BP #4

Fan

MARK: VF-305

ENGINEERING DATA

Approx. Fan Weight (lb)	Class	Max. T Motor Frame Size	WR ² (lb-ft ²)
2,580	III	444	901

**Weight does NOT include motor, drives, or accessories.

Motor Location	FAN	Drive Type
R		Constant

CONFIGURATION

Arrangement	Rotation	Discharge Position	Material Type
9	CW	TH	Steel

INSTALLATION

Inlet Conditions	Outlet Conditions
Standard	Standard

MOTOR SPECS

Size (hp)	RPM	V/C/P	Enclosure	Motor Frame Size
100	1725	460/60/3	ODP	404

BISW Series 21 Backward Inclined Single Width

Tag: VF-305

STANDARD CONSTRUCTION FEATURES

HOUSING: Series 21 class I and II fans feature Perma-Lock construction on sizes 7-49 and continuously welded housing on sizes 54-73 and all class III fans • Inlet collars on Arr. 1, 9, 10 • Unpunched outlet flange standard on class I and II sizes 33-73, all class III fans, and all downblast fans (DB) • All structural steel parts phosphatized and coated with Permatecor

BEARINGS, SHAFT, AND WHEEL: Heavy duty, self-aligning ball or roller pillow block bearings • Polished, solid steel shafts • Fully welded centrifugal wheel

SELECTED OPTIONS & ACCESSORIES

Flange - Outlet, Unpunched
Heat Slinger
Inertia Base, Free Standing Isolator w/ 2" Defl., Base Field Mntd
Permatecor Coating on Steel Components
Motor Service Factor of 1.15 or greater
Class B Motor Insulation or Greater
Drive Service Factor of 1.5 - Standard
UL/cUL 705 - "Power Ventilators"
Guard - Shaft, TE, Steel
Guard - Belt, TE, Steel
Drain Conn. - 1" Pipe Thread w/o Plug
UL Power Ventilator for Smoke Control Systems
Access door - Bolted
Motor Compatible for use w/ VFD
High Temp. Shaft Seal
Bearings - Split Pillow Block
Premium Efficient Motor exceeds EPACT and NEMA 1210

NOTES:

Single wall airfoil type fan is NOT rated for smoke evacuation. The backward inclined type fan is rated for smoke evacuation, so it has been selected in lieu of the single wall airfoil type fan.

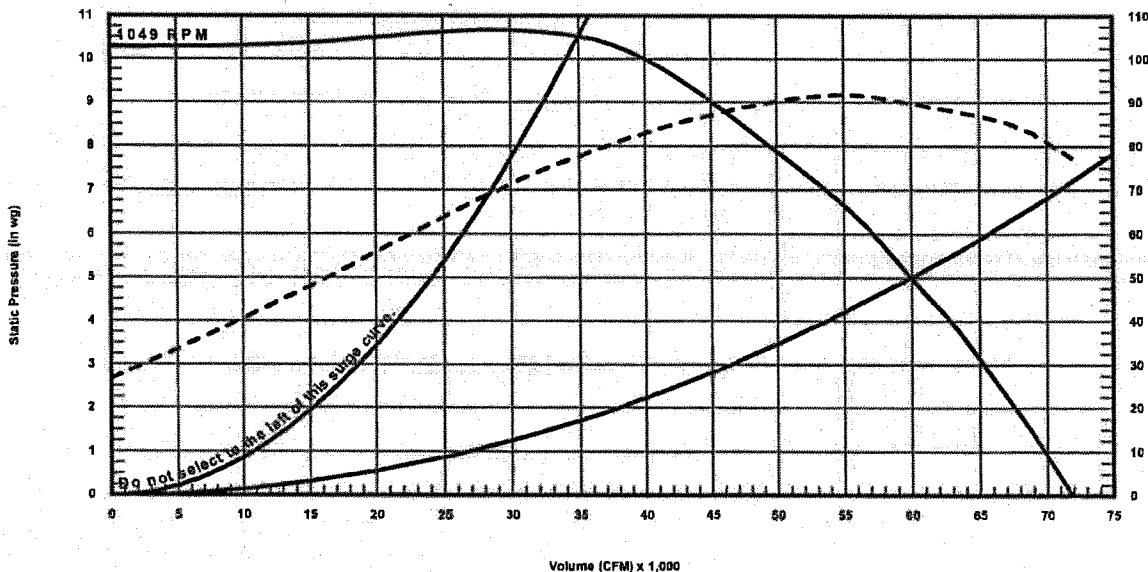
PERFORMANCE (Elevation ft = 0, Airstream Temperature F = 70, Static Up Temperature F = 70)

Qty	Model	Volume (CFM)	SP (in wg)	TS (ft/min)	OV (ft/min)	FRPM	Max Class FRPM	Operating Power (hp)	SE %
1	49-BISW-21	60,000	5	13,457.0	4,348.0	1,049	1,264	89.93	54

SOUND

Inlet / Outlet Sound Power by Octave Band								LwA	dBA
63	125	250	500	1000	2000	4000	8000		
107	113	105	98	97	94	88	83	103	92
114	116	108	103	100	97	91	86	107	96

LwA - A weighted sound power level, based on ANSI S1.4. dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft.



**Greenheck**

09/20/06

JOB: Cincinnati Financial Tower #3 Expansion BP #4

Fan

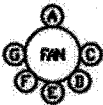
MARK: VF-311

ENGINEERING DATA

Approx. Fan Weight (lb)	Class	Max. T Motor Frame Size	WR ² (lb-ft ²)
1,205	II	326	183

**Weight does NOT include motor, drives, or accessories.

Motor Location
A



Drive Type

Constant

CONFIGURATION

Arrangement	Discharge Position	Material Type	Mounting
9	Horizontal	Steel	Ceiling Hung

INSTALLATION

Inlet Conditions	Outlet Conditions
Standard	Standard

MOTOR SPECS

Size (hp)	RPM	V/C/P	Enclosure	Motor Frame Size
15	1725	460/60/3	ODP	254

TCF Tubular Centrifugal Fan

Tag: VF-311

STANDARD CONSTRUCTION FEATURES

HOUSING: Continuously welded steel housing • Welded steel air straightening vanes • Bolted access doors • Lifting lugs • Inlet and outlet flanges with mounting holes • Heavy duty, steel motor supports with adjustment screws for belt tensioning • Structural parts are phosphatized and coated with Permactector

BEARINGS, SHAFT, AND WHEEL: Heavy duty, self-aligning ball or roller pillow block bea...

SELECTED OPTIONS & ACCESSORIES

Access Door, Bolted
 Bearings - L10 Extended Life, 200,000 hours
 Punched Flange Connection at Inlet
 Motor Cover
 Hanging Isoln, Neoprene Hanging w/ 1/4" Defl.,
 Permactector Coating on Steel Components
 Switch - Nema-1, Toggle, Mounted & Wired
 Motor Service Factor of 1.15 or greater
 Class F Motor Insulation
 Drive Service Factor of 1.5 - Standard
 UL/cUL-705 - "Power Ventilators"
 UL Power Ventilator for Smoke Control Systems
 Motor Compatible for use w/ VFD
 Motor w/ Thermal Overloads
 Premium Efficient Motor exceeds EPACT and NEMA 1210 ✓

NOTES:

The model TCF fan is rated in terms of dBA. The conversion to sonas is less than 20 sonas for this fan-selection.

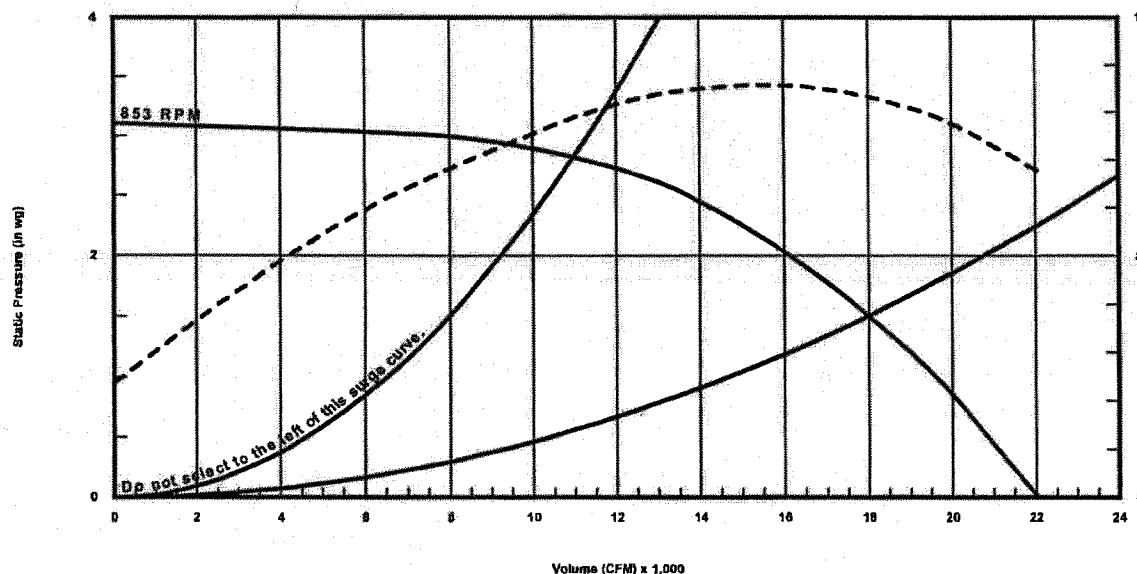
PERFORMANCE Elevation ft = 0 Air Stream Temperature F=70 Start Up Temperature F=70 Drive Loss (%) 3

Qty.	Model	Volume (CFM)	SP (in wg)	TS (ft/min)	OV (ft/min)	FRPM	Max Class FRPM	Operating Power (hp)	SE %
1	36-TCF-9-II	18,000	1.5	8,151.0	1,305.0	853	1,527	8.32	53

SOUND

Inlet Sound Power by Octave Band								LwA	dBA
62.5	125	250	500	1000	2000	4000	8000		
91	97	86	82	80	77	73	71	86	75

LwA - A weighted sound power level, based on ANSI S1.4. dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft.



Power (hp) (dashed lines use this axis)





Evergreen Chiller Performance Outputs

Project Name: Untitled
Sales Office: CAC Distributing Company

07/23/2011
09:08 AM



Tag Name: Cincinnati Financial - ARI Rating

Chiller

Chiller Model **19XRV6667456DFS64**
Starter / VFD **VFD - Unit Mounted**
Refrigerant Type **R-134a**

Cooler

Size **66**
Waterbox Type **Nozzle-in-Head, 150 psi**
Passes **2**
Nozzle Arrangement **D**
Tubing **Super E3 (SUPE3), .025 in, Copper**
Fluid Type **Fresh Water**
Fouling Factor (hr-sqft-F)/BTU **0.00010**

Compressor

Size **456**

Flow Controls

Float Valve Size **8**
Flasc Orifice **30**

Weights

Total Rigging Weight **25814** lb
Total Operating Weight **29324** lb
Refrigerant Weight **1570** lb

Condenser

Size **67**
Waterbox Type **Nozzle-in-Head, 150 psi**
Passes **2**
Nozzle Arrangement **Will Advise**
Tubing **Spike Fin III (SPK3), .025 in, Copper**
Fluid Type **Fresh Water**
Fouling Factor (hr-sqft-F)/BTU **0.00025**

Motor

Size **DFS**
Line Voltage/Hertz **460-3-60**

Output Type	Full Load	Part Load	Part Load	Part Load
Percent Load	100.00	75.00	50.00	25.00
Chiller Capacity	675 Tons	506 Tons	338 Tons	169 Tons
Chiller Input kW	372 kW	206 kW	103 kW	67 kW
Chiller Input Power	0.552 kW/Ton	0.407 kW/Ton	0.304 kW/Ton	0.399 kW/Ton
IPLV	0.353 kW/Ton	N/A	N/A	N/A
Cooler				
Entering Temp.	53.97 F	51.48 F	48.99 F	46.49 F
Leaving Temp.	44.00 F	44.00 F	44.00 F	44.00 F
Flow Rate	1620.0 gpm	1620.0 gpm	1620.0 gpm	1620.0 gpm
Pressure Drop	17.7 ft wg	17.8 ft wg	17.9 ft wg	18.0 ft wg
Condenser				
Leaving Temp.	94.25 F	81.69 F	69.32 F	67.20 F
Entering Temp.	85.00 F	75.00 F	65.00 F	65.00 F
Flow Rate	2025.0 gpm	2025.0 gpm	2025.0 gpm	2025.0 gpm
Pressure Drop	16.4 ft wg	16.8 ft wg	17.3 ft wg	17.3 ft wg
Motor				
Motor Rated Load Amps	605	391	254	199
Chiller Rated Line Amps	507	297	170	122
Chiller Inrush Amps	507			
Max Fuse/CB Amps	1200			
Min Circuit Ampacity	633			

Messages:

- (1) Certified in accordance with the AHRI Water-Chilling Packages using the Vapor Compression Cycle Certification Program, which is based on AHRI Standard 550/590 (formerly ARI Standard 550/590)

AAON®**Unit Rating**2425 South Yukon Ave - Tulsa, Oklahoma 74107-2728 - Ph. (918) 583-2266 Fax (918) 583-6094
AAONEcat32 Ver. 4.133 (SN: 6770544-ENLR7H6A)1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23
RM-006-3-0-EB09-329:A000-Q00-DBD-000-ND0000E-00-0E00000AB

Tag: RTU-1

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
 Job Number: CINCINNATI, OHIO
 Site Altitude: 850 ft
 Refrigerant: R-410A

Static Pressure

External: 0.70 in. wg.
 Evaporator: 0.33 in. wg.
 Filters Clean: 0.08 in. wg.
 Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	71.63	68.87 MBH
Sensible Capacity:	54.75	51.94 MBH
Latent Capacity:	16.93 MBH	
Mixed Air Temp:	78.81 °F DB	64.78 °F WB
Entering Air Temp:	78.81 °F DB	64.78 °F WB
Lv Air Temp (Coil):	51.99 °F DB	51.79 °F WB
Lv Air Temp (Unit):	53.34 °F DB	52.36 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 150 @ 0.87 BHP	
SA Fan RPM / Width:	1644 / 5.160"	
Evaporator Coil:	6.2 ft ² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	316.6 fpm	

EER - ARI Listing Information

EER @ ARI Conditions: 11.9

Electrical Data

Rating: 460/3/60
 Unit FLA: 15

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			9.7
Condenser Fans:	2	0.33	460	1	1075	1.1	
Supply Fan:	1	2.00	460	3	1760	3.4	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	63	63	70	77	72	72	65	55
Return LW(dB):	56	58	57	56	52	52	46	35

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

Unit Information

Approx. Op./Ship Weights: 1039 / 1039 lbs.
 Supply CFM/ESP: 1970 / 0.7 in. wg.
 Final-Filter FV / Qty: 221.63 fpm / 4
 Outside CFM: 375
 Ambient Temperature: 95 °F DB / 75 °F WB
 Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.05 in. wg.
 Heating: 0.09 in. wg.

Re-Heat Coil: 0.05 in. wg.
 Total: 1.65 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
 Heating Type: Nat. Gas Heat
 Heating CFM: 1970
 Total Capacity: 72.9 MBH
 OA Temp: 0.0 DB / -1.0 °F WB
 RA Temp: 75.0 °F DB / 62.0 °F WB
 Entering Air Temp: 60.7 °F DB / 54.0 °F WB
 Leaving Air Temp: 95.0 °F DB / 66.4 °F WB
 Input: 90.0 MBH
 Heater Qty: 1
 Consumption: 90.0 MBH
 Operation: N/A

Re-Heat Coil:

Capacity: 45 MBH
 LA DB / WB: 74.00 °F / 60.29 °F
 RH: 46%

Application EER @ Op. Conditions:

10.6

Minimum Circuit Amp: 18
 Maximum Overcurrent: 25

AAON®

Unit Rating

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AAONEcat32 Ver. 4.133 (SN: 6770544-ENLR7H6A)

RN-010-3-0-EA09-3F9:A000-Q00-DRP-000-NH0000E-00-00000000AB

Tag: RTU-2

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
 Job Number: CINCINNATI, OHIO
 Site Altitude: 850 ft
 Refrigerant: R-410A

Static Pressure

External: 0.50 in. wg.
 Evaporator: 0.12 in. wg.
 Filters Clean: 0.08 in. wg.
 Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	113.63	110.83 MBH
Sensible Capacity:	86.45	83.65 MBH
Latent Capacity:	27.18 MBH	
Mixed Air Temp:	76.83 °F DB	63.35 °F WB
Entering Air Temp:	76.83 °F DB	63.35 °F WB
Lv Air Temp (Coil):	50.19 °F DB	49.99 °F WB
Lv Air Temp (Unit):	51.04 °F DB	50.36 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220 @ 0.96 BHP	
SA Fan RPM / Width:	992 / 4.428"	
Evaporator Coil:	14.6 ft ² / 3 Rows / 14 FPI	
Evaporator Face Velocity:	213.9 fpm	

EER - ARI Listing Information

EER @ ARI Conditions: 12.2

Electrical Data

Rating: 460/3/60
 Unit FLA: 22

	Qty	HP	VAC
Compressor 1:	1		460
Compressor 2:	1		460
Condenser Fans:	1	0.75	460
Supply Fan:	1	2.00	460
Combustion:	1	0.09	460

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	80	83	80	72	68	64	59	53
Return LW(dB):	75	76	71	60	60	56	48	39

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

Unit Information

Approx. Op./Ship Weights: 1913 / 1913 lbs.
 Supply CFM/ESP: 3120 / 0.5 in. wg.
 Final-Filter FV / Qty: 224.64 fpm / 4
 Outside CFM: 285
 Ambient Temperature: 95 °F DB / 75 °F WB
 Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.10 in. wg.
 Heating: 0.02 in. wg.
 Cabinet: 0.05 in. wg.
 Re-Heat Coil: 0.02 in. wg.
 Total: 1.25 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
 Heating Type: Nat. Gas Heat
 Heating CFM: 3120
 Total Capacity: 156.0 MBH
 OA Temp: 0.0 DB / -1.0 °F WB
 RA Temp: 75.0 °F DB / 62.0 °F WB
 Entering Air Temp: 63.2 °F DB / 52.3 °F WB
 Leaving Air Temp: 114.4 °F DB / 73.2 °F WB
 Input: 195.0 MBH
 Heater Qty: 1
 Consumption: 195.0 MBH
 Operation: N/A

Re-Heat Coil:

Capacity: 71 MBH
 LA DB / WB: 71.98 °F / 58.69 °F
 RH: 46%

Application EER @ Op. Conditions:

10.8

Minimum Circuit Amp: 24
 Maximum Overcurrent: 30

Phase	RPM	FLA	RIA
3			8.1
3			7.8
1	1075	2.3	
3	1170	3.4	
1	3000	0.7	

AAON®

Unit Rating

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AAON Ecat32 Ver. 4.133 (SN: 6770544-ENLR7HGA)

1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
RN-013-3-0-EA09-3F9:A000-Q00-DSP-000-NH0000E-00-0000000AB

Tag: RTU-3

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
Job Number: CINCINNATI, OHIO
Site Altitude: 350 ft
Refrigerant: R-410A

Unit Information

Approx. Op./Ship Weights: 2016 / 2016 lbs.
Supply CFM/ESP: 2215 / 0.5 in. wg.
Final-Filter FV / Qty: 159.48 fpm / 4
Outside CFM: 1315
Ambient Temperature: 95 °F DB / 75 °F WB
Return Temperature: 75 °F DB / 62 °F WB

Static Pressure

External: 0.50 in. wg.
Evaporator: 0.11 in. wg.
Filters Clean: 0.07 in. wg.
Dirt Allowance: 0.35 in. wg.

Economizer: 0.02 in. wg.
Heating: 0.00 in. wg.
Cabinet: 0.01 in. wg.
Re-Heat Coil: 0.01 in. wg.
Total: 1.06 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	137.16	135.46 MBH
Sensible Capacity:	86.43	84.74 MBH
Latent Capacity:	50.72 MBH	
Mixed Air Temp:	86.87 °F DB	70.16 °F WB
Entering Air Temp:	86.87 °F DB	70.16 °F WB
Lv Air Temp (Coil):	48.48 °F DB	48.28 °F WB
Lv Air Temp (Unit):	49.21 °F DB	48.61 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220D70 @ 0.58 BHP	
SA Fan RPM / Width:	942 / 3.105"	
Evaporator Coil:	14.6 ft² / 4 Rows / 14 FPI	
Evaporator Face Velocity:	151.9 fpm	

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: Nat. Gas Heat
Heating CFM: 2215
Total Capacity: 156.0 MBH
OA Temp: 0.0 DB / -1.0 °F WB
RA Temp: 75.0 °F DB / 62.0 °F WB
Entering Air Temp: 30.5 °F DB / 30.5 °F WB
Leaving Air Temp: 95.6 °F DB / 60.9 °F WB
Input: 195.0 MBH
Heater Qty: 1
Consumption: 195.0 MBH
Operation: N/A

Re-Heat Coil:

Capacity: 59 MBH
LA DB / WB: 74.00 °F / 58.64 °F
RH: 40%

EER - ARI Listing Information

EER @ ARI Conditions: 12.1

Application EER @ Op. Conditions: 11.3

Electrical Data

Rating: 460/3/60
Unit FLA: 28

Minimum Circuit Amp: 31
Maximum Overcurrent: 40

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			9.7
Compressor 2:	1		460	3			10.6
Condenser Fans:	2	0.75	460	1	1075	2.3	
Supply Fan:	1	2.00	460	3	1170	3.4	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	78	84	78	69	66	64	58	52
Return LW(dB):	71	76	68	56	57	53	46	35

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

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AAONEcat32 Ver. 4.133 (SN: 6770544-ENLRTH6A)

Unit Rating

4665277
RN-015-3-0-EB09-3F9:A000-Q00-DRF-000-NH0000E-00-0000000AB

Tag: RTU-4

Job Information

Job Name: CFC. WINTON CENTER-CINN, OH
Job Number: CINCINNATI, OHIO
Site Altitude: 850 ft
Refrigerant: R-410A

Unit Information

Approx. Op./Ship Weights: 2058 / 2058 lbs.
Supply CFM/ESP: 5010 / 0.75 in. wg.
Final-Filter FV / Qty: 360.72 fpm / 4
Outside CFM: 665
Ambient Temperature: 95 °F DB / 75 °F WB
Return Temperature: 75 °F DB / 62 °F WB

Static Pressure

External: 0.75 in. wg.
Evaporator: 0.42 in. wg.
Filters Clean: 0.15 in. wg.
Dirt Allowance: 0.35 in. wg.

Economizer: 0.19 in. wg.
Heating: 0.10 in. wg.
Cabinet: 0.12 in. wg.
Re-Heat Coil: 0.06 in. wg.
Total: 2.13 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	182.86	175.17 MBH
Sensible Capacity:	139.13	131.45 MBH
Latent Capacity:	43.72 MBH	
Mixed Air Temp:	77.65 °F DB	63.95 °F WB
Entering Air Temp:	77.65 °F DB	63.95 °F WB
Lv Air Temp (Coil):	50.91 °F DB	50.71 °F WB
Lv Air Temp (Unit):	52.36 °F DB	51.33 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220 @ 2.70 BHP	
SA Fan RPM / Width:	1396 / 4.428"	
Evaporator Coil:	14.6 ft² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	343.5 fpm	

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: Nat. Gas Heat
Heating CFM: 5010
Total Capacity: 156.0 MBH
OA Temp: 0.0 DB / -1.0 °F WB
RA Temp: 75.0 °F DB / 62.0 °F WB
Entering Air Temp: 65.0 °F DB / 56.6 °F WB
Leaving Air Temp: 93.9 °F DB / 66.7 °F WB
Input: 195.0 MBH
Heater Qty: 1
Consumption: 195.0 MBH
Operation: N/A

Re-Heat Coil:

Capacity: 114 MBH
LA DB / WB: 72.64 °F / 59.28 °F
RH: 46%

EER - ARI Listing Information

EER @ ARI Conditions:

11.4

Application EER @ Op. Conditions:

10.0

Electrical Data

Rating: 460/3/60
Unit FLA: 37

Minimum Circuit Amp: 40
Maximum Overcurrent: 50

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			12.6
Compressor 2:	1		460	3			12.2
Condenser Fans:	2	0.75	460	1	1075	2.3	
Supply Fan:	1	5.00	460	3	1760	7.6	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	89	87	89	83	76	73	70	64
Return LW(dB):	80	77	78	69	65	61	56	45

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

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AAONEcat32 Ver. 4.133 (SN: 6770544-ENLR7H6A)

RN-008-3-0-EB09-3F9:A000-Q00-DRP-000-NH0000E-00-0000000AB

Tag: RTU-5

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
 Job Number: CINCINNATI, OHIO
 Site Altitude: 850 ft
 Refrigerant: R-410A

Static Pressure

External: 0.50 in. wg.
 Evaporator: 0.16 in. wg.
 Filters Clean: 0.08 in. wg.
 Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	100.42	97.80 MBH
Sensible Capacity:	78.68	76.07 MBH
Latent Capacity:	21.74 MBH	
Mixed Air Temp:	77.80 °F DB	64.06 °F WB
Entering Air Temp:	77.80 °F DB	64.06 °F WB
Lv Air Temp (Coil):	51.95 °F DB	51.75 °F WB
Lv Air Temp (Unit):	52.79 °F DB	52.10 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220 @ 0.90 BHP	
SA Fan RPM / Width:	971 / 4.428"	
Evaporator Coil:	14.6 ft² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	200.9 fpm	

Unit Information

Approx. Op./Ship Weights: 1918 / 1918 lbs.
 Supply CFM/ESP: 2930 / 0.5 in. wg.
 Final-Filter FV / Qty: 210.96 fpm / 4
 Outside CFM: 410
 Ambient Temperature: 95 °F DB / 75 °F WB
 Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.09 in. wg.
 Heating: 0.01 in. wg.
 Cabinet: 0.04 in. wg.
 Re-Heat Coil: 0.02 in. wg.
 Total: 1.24 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
 Heating Type: Nat. Gas Heat
 Heating CFM: 2930
 Total Capacity: 156.0 MBH
 OA Temp: 0.0 DB / -1.0 °F WB
 RA Temp: 75.0 °F DB / 62.0 °F WB
 Entering Air Temp: 64.5 °F DB / 56.2 °F WB
 Leaving Air Temp: 113.8 °F DB / 72.6 °F WB
 Input: 195.0 MBH
 Heater Qty: 1
 Consumption: 195.0 MBH
 Operation: N/A

Re-Heat Coil:

Capacity: 61 MBH
 LA DB / WB: 71.81 °F / 59.49 °F
 RH: 49%

EER - ARI Listing Information

EER @ ARI Conditions: 13.9

Application EER @ Op. Conditions: 12.1

Electrical Data

Rating: 460/3/60
 Unit FLA: 20

Minimum Circuit Amp: 22
 Maximum Overcurrent: 25

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			7.8
Compressor 2:	1		460	3			6.2
Condenser Fans:	1	0.75	460	1	1075	2.3	
Supply Fan:	1	2.00	460	3	1170	3.4	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	78	82	78	71	66	64	59	53
Return LW(dB):	69	73	67	57	56	52	45	33

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

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Unit Rating

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1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23
RN-015-3-0-EB09-3F9:A000-Q00-DRF-000-NH0000E-00-00000000AB

Tag: RTU-6

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
Job Number: CINCINNATI, OHIO
Site Altitude: 850 ft
Refrigerant: R-410A

Static Pressure

External: 0.75 in. wg.
Evaporator: 0.42 in. wg.
Filters Clean: 0.15 in. wg.
Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	183.50	175.89 MBH
Sensible Capacity:	139.27	131.66 MBH
Latent Capacity:	44.23 MBH	
Mixed Air Temp:	78.03 °F DB	64.22 °F WB
Entering Air Temp:	78.03 °F DB	64.22 °F WB
Lv Air Temp (Coil):	51.14 °F DB	50.94 °F WB
Lv Air Temp (Unit):	52.57 °F DB	51.55 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220 @ 2.63 BHP	
SA Fan RPM / Width:	1392 / 4.428"	
Evaporator Coil:	14.6 ft ² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	342.2 fpm	

EER - ARI Listing Information

EER @ ARI Conditions: 11.4

Electrical Data

Rating: 460/3/60
Unit FLA: 37

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			12.6
Compressor 2:	1		460	3			12.2
Condenser Fans:	2	0.75	460	1	1075	2.3	
Supply Fan:	1	5.00	460	3	1760	7.6	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	89	87	89	83	76	73	70	64
Return LW(dB):	80	77	78	69	65	61	56	45

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

Unit Information

Approx. Op./Ship Weights: 2058 / 2058 lbs.
Supply CFM/ESP: 4990 / 0.75 in. wg.
Final-Filter FV / Qty: 359.28 fpm / 4
Outside CFM: 755
Ambient Temperature: 95 °F DB / 75 °F WB
Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.18 in. wg.
Heating: 0.10 in. wg.
Cabinet: 0.12 in. wg.
Re-Heat Coil: 0.05 in. wg.
Total: 2.12 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: Nat. Gas Heat
Heating CFM: 4990
Total Capacity: 156.0 MBH
OA Temp: 0.0 DB / -1.0 °F WB
RA Temp: 75.0 °F DB / 62.0 °F WB
Entering Air Temp: 63.7 °F DB / 55.7 °F WB
Leaving Air Temp: 92.6 °F DB / 66.1 °F WB
Input: 195.0 MBH
Heater Qty: 1
Consumption: 195.0 MBH
Operation: N/A

Re-Heat Coil:

Capacity: 114 MBH
LA DB / WB: 73.02 °F / 59.52 °F
RH: 46%

Application EER @ Op. Conditions: 10.1

Minimum Circuit Amp: 40
Maximum Overcurrent: 50

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Unit Rating

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LA 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
RN-015-3-0-EA09-3F9:A000-Q00-DRF-000-NH0000E-00-0000000AB

Tag: RTU-7

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
Job Number: CINCINNATI, OHIO
Site Altitude: 850 ft
Refrigerant: R-410A

Static Pressure

External: 0.50 in. wg.
Evaporator: 0.34 in. wg.
Filters Clean: 0.14 in. wg.
Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	176.86	170.78 MBH
Sensible Capacity:	133.83	127.76 MBH
Latent Capacity:	43.02 MBH	
Mixed Air Temp:	78.01 °F DB	64.21 °F WB
Entering Air Temp:	78.01 °F DB	64.21 °F WB
Lv Air Temp (Coil):	51.03 °F DB	50.83 °F WB
Lv Air Temp (Unit):	52.23 °F DB	51.34 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220 @ 2.14 BHP	
SA Fan RPM / Width:	1294 / 4.428"	
Evaporator Coil:	14.6 ft² / 4 Rows / 14 FPI	
Evaporator Face Velocity:	327.8 fpm	

Unit Information

Approx. Op./Ship Weights: 2018 / 2018 lbs.
Supply CFM/ESP: 4780 / 0.5 in. wg.
Final Filter FV / Qty: 344.16 fpm / 4
Outside CFM: 730
Ambient Temperature: 95 °F DB / 75 °F WB
Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.17 in. wg.
Heating: 0.08 in. wg.
Cabinet: 0.11 in. wg.
Re-Heat Coil: 0.05 in. wg.
Total: 1.74 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: Nat. Gas Heat
Heating CFM: 4780
Total Capacity: 156.0 MBH
OA Temp: 0.0 DB / -1.0 °F WB
RA Temp: 75.0 °F DB / 62.0 °F WB
Entering Air Temp: 63.7 °F DB / 55.8 °F WB
Leaving Air Temp: 93.9 °F DB / 66.5 °F WB
Input: 195.0 MBH
Heater Qty: 1
Consumption: 195.0 MBH
Operation: N/A

Re-Heat Coil:

Capacity: 111 MBH
LA DB / WB: 73.17 °F / 59.53 °F
RH: 45%

EER - ARI Listing Information

EER @ ARI Conditions:

11.2

Application EER @ Op. Conditions:

10.1

Electrical Data

Rating: 460/3/60
Unit FLA: 37

Minimum Circuit Amp: 40
Maximum Overcurrent: 50

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			12.6
Compressor 2:	1		460	3			12.2
Condenser Fans:	2	0.75	460	1	1075	2.3	
Supply Fan:	1	5.00	460	3	1760	7.6	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	86	85	87	81	73	72	68	62
Return LW(dB):	79	77	77	68	64	62	55	45

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.



Unit Rating

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1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23
RN-015-3-0-EB09-3F9:A000-Q00-DRF-000-NH0000E-00-00000000AB

Tag: RTU-8

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
Job Number: CINCINNATI, OHIO
Site Altitude: 850 ft
Refrigerant: R-410A

Static Pressure

External: 0.75 in. wg.
Evaporator: 0.44 in. wg.
Filters Clean: 0.15 in. wg.
Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	184.67	176.59 MBH
Sensible Capacity:	141.73	133.65 MBH
Latent Capacity:	42.94 MBH	
Mixed Air Temp:	78.01 °F DB	64.21 °F WB
Entering Air Temp:	78.01 °F DB	64.21 °F WB
Lv Air Temp (Coil):	51.50 °F DB	51.30 °F WB
Lv Air Temp (Unit):	52.98 °F DB	51.92 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220 @ 2.84 BHP	
SA Fan RPM / Width:	1421 / 4.428"	
Evaporator Coil:	14.6 ft ² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	353.1 fpm	

Unit Information

Approx. Op./Ship Weights: 2058 / 2058 lbs.
Supply CFM/ESP: 5150 / 0.75 in. wg.
Final Filter FV / Qty: 370.80 fpm / 4
Outside CFM: 775
Ambient Temperature: 95 °F DB / 75 °F WB
Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.19 in. wg.
Heating: 0.10 in. wg.
Cabinet: 0.13 in. wg.
Re-Heat Coil: 0.06 in. wg.
Total: 2.17 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: Nat. Gas Heat
Heating CFM: 5150
Total Capacity: 156.0 MBH
OA Temp: 0.0 DB / -1.0 °F WB
RA Temp: 75.0 °F DB / 62.0 °F WB
Entering Air Temp: 63.7 °F DB / 55.8 °F WB
Leaving Air Temp: 91.8 °F DB / 65.8 °F WB
Input: 195.0 MBH
Heater Qty: 1
Consumption: 195.0 MBH
Operation: N/A

Re-Heat Coil:

Capacity: 115 MBH
LA DB / WB: 72.82 °F / 59.63 °F
RH: 46%

EER - ARI Listing Information

EER @ ARI Conditions:

11.4

Application EER @ Op. Conditions:

10.0

Electrical Data

Rating: 460/3/60
Unit FLA: 37

Minimum Circuit Amp: 40
Maximum Overcurrent: 50

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			12.6
Compressor 2:	1		460	3			12.2
Condenser Fans:	2	0.75	460	1	1075	2.3	
Supply Fan:	1	5.00	460	3	1760	7.6	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	89	87	90	83	76	75	70	64
Return LW(dB):	80	78	79	69	65	63	56	45

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

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Unit Rating

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1A 1B 1C 1D 2 3 4 5A 5B 5C 6A 6B 6C 7 8 9 10 11 12 13 14A 14B 15 16 17 18 19 20 21 22 23
RN-013-3-0-EA09-3F9:A000-Q00-DRE-000-NH0000E-00-0000000AB

Tag: RTU-9

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
Job Number: CINCINNATI, OHIO
Site Altitude: 850 ft
Refrigerant: R-410A

Static Pressure

External: 0.75 in. wg.
Evaporator: 0.24 in. wg.
Filters Clean: 0.10 in. wg.
Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	144.57	139.78 MBH
Sensible Capacity:	109.65	104.86 MBH
Latent Capacity:	34.92 MBH	
Mixed Air Temp:	77.80 °F DB	64.06 °F WB
Entering Air Temp:	77.80 °F DB	64.06 °F WB
Lv Air Temp (Coil):	50.93 °F DB	50.73 °F WB
Lv Air Temp (Unit):	52.08 °F DB	51.22 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 220 @ 1.68 BHP	
SA Fan RPM / Width:	1193 / 4.428"	
Evaporator Coil:	14.6 ft² / 4 Rows / 14 FPI	
Evaporator Face Velocity:	269.5 fpm	

Unit Information

Approx. Op./Ship Weights: 2016 / 2016 lbs.
Supply CFM/ESP: 3930 / 0.75 in. wg.
Final-Filter FV / Qty: 282.96 fpm / 4
Outside CFM: 550
Ambient Temperature: 95 °F DB / 75 °F WB
Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.13 in. wg.
Heating: 0.04 in. wg.
Cabinet: 0.08 in. wg.
Re-Heat Coil: 0.03 in. wg.
Total: 1.73 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: Nat. Gas Heat
Heating CFM: 3930
Total Capacity: 156.0 MBH
OA Temp: 0.0 DB / -1.0 °F WB
RA Temp: 75.0 °F DB / 62.0 °F WB
Entering Air Temp: 64.5 °F DB / 56.2 °F WB
Leaving Air Temp: 101.3 °F DB / 68.9 °F WB
Input: 195.0 MBH
Heater Qty: 1
Consumption: 195.0 MBH
Operation: N/A

Re-Heat Coil:

Capacity: 89 MBH
LA DB / WB: 72.51 °F / 59.24 °F
RH: 46%

EER - ARI Listing Information

EER @ ARI Conditions: 12.1

Application EER @ Op. Conditions: 10.7

Electrical Data

Rating: 460/3/60
Unit FLA: 30

Minimum Circuit Amp: 32
Maximum Overcurrent: 40

	Qty	HP	VAC	Phase	RPM	FLA	RLA
Compressor 1:	1		460	3			9.7
Compressor 2:	1		460	3			10.6
Condenser Fans:	2	0.75	460	1	1075	2.3	
Supply Fan:	1	3.00	460	3	1760	4.8	
Combustion:	1	0.09	460	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	84	85	85	77	72	70	65	59
Return LW(dB):	77	77	75	64	63	60	53	43

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.

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RM-006-3-0-EB09-329:A000-Q00-DBD-000-ND0000E-00-0E00000AB

Tag: RTU-10

Job Information

Job Name: CFC- WINTON CENTER-CINN, OH
Job Number: CINCINNATI, OHIO
Site Altitude: 850 ft
Refrigerant: R-410A

Static Pressure

External: 0.70 in. wg.
Evaporator: 0.33 in. wg.
Filters Clean: 0.08 in. wg.
Dirt Allowance: 0.35 in. wg.

Cooling Section

	Gross	Net
Total Capacity:	70.35	67.60 MBH
Sensible Capacity:	53.68	50.93 MBH
Latent Capacity:	16.67 MBH	
Mixed Air Temp:	77.53 °F DB	63.86 °F WB
Entering Air Temp:	77.53 °F DB	63.86 °F WB
Lv Air Temp (Coil):	50.89 °F DB	50.69 °F WB
Lv Air Temp (Unit):	52.23 °F DB	51.26 °F WB
Digital Comp. Capacity Ratio:	100%	
Supply Air Fan:	1 x 150 @ 0.85 BHP	
SA Fan RPM / Width:	1633 / 5.160"	
Evaporator Coil:	6.2 ft² / 6 Rows / 12 FPI	
Evaporator Face Velocity:	311.8 fpm	

EER - ARI Listing Information

EER @ ARI Conditions: 11.9

Electrical Data

Rating: 460/3/60
Unit FLA: 15

	Qty	HP	VAC
Compressor 1:	1		460
Condenser Fans:	2	0.33	460
Supply Fan:	1	2.00	460
Combustion:	1	0.09	460

Unit Information

Approx. Op./Ship Weights: 1039 / 1039 lbs.
Supply CFM/ESP: 1940 / 0.7 in. wg.
Final-Filter FV / Qty: 218.25 fpm / 4
Outside CFM: 245
Ambient Temperature: 95 °F DB / 75 °F WB
Return Temperature: 75 °F DB / 62 °F WB

Economizer: 0.06 in. wg.
Heating: 0.09 in. wg.

Re-Heat Coil: 0.05 in. wg.
Total: 1.64 in. wg.

Heating Section

PreHeat Type: Std (No Preheat)
Heating Type: Nat. Gas Heat
Heating CFM: 1940
Total Capacity: 72.9 MBH
OA Temp: 0.0 DB / -1.0 °F WB
RA Temp: 75.0 °F DB / 62.0 °F WB
Entering Air Temp: 65.5 °F DB / 56.8 °F WB
Leaving Air Temp: 100.3 °F DB / 68.8 °F WB
Input: 90.0 MBH
Heater Qty: 1
Consumption: 90.0 MBH
Operation: N/A

Re-Heat Coil:

Capacity: 47 MBH
LA DB / WB: 74.00 °F / 59.76 °F
RH: 44%

Application EER @ Op. Conditions: 10.4

	Minimum Circuit Amp:	18
Maximum Overcurrent:	25	

	Phase	RPM	FLA	RLA
Compressor 1:	3			9.7
Condenser Fans:	1	1075	1.1	
Supply Fan:	3	1760	3.4	
Combustion:	1	3000	0.7	

Cabinet Sound Power Levels*

Octave Bands:	63	125	250	500	1000	2000	4000	8000
Discharge LW(dB):	63	63	71	77	72	72	65	55
Return LW(dB):	56	58	57	56	52	51	46	35

*Sound power levels are given for informational purposes only. The sound levels are not guaranteed.