



Legal Department

July 7, 2017

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

Re: In the Matter of the Application of)
Speedway Superamerica LLC)
and Ohio Power Company) Case No. 17-0785-EL-EEC
for Approval of a Special Arrangement)
Agreement with a Mercantile Customer)

Ryan Aguiar
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Regulatory Services
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Dear Chairman Haque,

Attached please find the Joint Application of Ohio Power Company (AEP Ohio) and the above-referenced mercantile customer for approval of a Special Arrangement of the commitment of energy efficiency/peak demand reduction (EE/PDR) resources toward compliance with the statutory benchmarks for 2017 (hereinafter "Joint Application").

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

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

Cordially,

/s/ Ryan Aguiar
Ryan Aguiar

Attachments



Public Utilities Commission

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

Case No.: 17-0785-EL-EEC

Mercantile Customer: SPEEDWAY SUPERAMERICA LLC

Electric Utility: Ohio Power

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

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

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

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

Section 1: Company Information

Name: SPEEDWAY SUPERAMERICA LLC

Principal address: 500 Speedway Drive, Enon, Oh 45323

Address of facility for which this energy efficiency program applies: 296 County Road 410, South Point, Oh 45680-7901

Name and telephone number for responses to questions:

Walker Lowell, Speedway Superamerica Llc, (937) 863-6070

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

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

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

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

Section 2: Application Information

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

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

B) Our electric utility is: Ohio Power Company

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

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

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

Section 3: Energy Efficiency Programs

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

- ☐ Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, 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): 10/31/2014
- ☐ Behavioral or operational improvement.

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

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

Annual savings: kWh

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

Annual savings: kWh

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

- 3) If you checked the box indicating that your project involves equipment for new construction or facility expansion, then calculate the annual savings

[(kWh used by less efficient new equipment) – (kWh used by higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

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

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

Annual savings: 6,202 kWh

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

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

The less efficient new equipment is the minimum required by Ohio State code or Federal Standard whichever is more stringent. For those measures where no code applies the baseline equipment is assumed to be the least efficient equipment available in the marketplace or standard practice, whichever results in the most conservative annual savings. Any information available describing the less efficient new equipment option is provided in 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures.

- 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 (choose which applies):

➤ Choose one or more of the following that applies:

☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.

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

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

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

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

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

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

1.7 kW

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

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

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

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

A) The customer is applying for:

☒ Option 1: A cash rebate reasonable arrangement.

OR

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

OR

☐ Commitment payment

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

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

☒ A cash rebate of \$ 385.65. (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.)

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

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

☐ An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for _____ months (not to exceed 24 months). (Attach

calculations showing how this time period was determined.)

OR

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

OR

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

Section 6: Cost Effectiveness

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

- ☐ Total Resource Cost (TRC) Test. The calculated TRC value is: _____
(Continue to Subsection 1, then skip Subsection 2)
- ☒ Utility Cost Test (UCT) . The calculated UCT value is: 5.40 (Skip to Subsection 2.)

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

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

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The utility's incremental measure costs were _____.

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

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

Our avoided supply costs were \$ 2,285.27

The utility's program costs were \$ 37.21

The utility's incentive costs/rebate costs were \$ 385.65.

Section 7: Additional Information

Please attach the following supporting documentation to this application:

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

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

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

- 1) any confidentiality requirements associated with the agreement;

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

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

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

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

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

communication to provide demand reduction capabilities to the Company.

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

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

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

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

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

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



Public Utilities Commission

Project # 17-20241
Docket # 17-0785

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

Case No.: 17-0785-EL-EEC

State of Ohio :

R. SEKAR IYER, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

DNV GL Energy Services USA Inc. agent of Ohio Power

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

[Signature] ENGINEER
Signature of Affiant & Title

Sworn and subscribed before me this 17th day of April, 2017 Month/Year

[Signature]
Signature of official administering oath

Dawn G. Irving / Notary
Print Name and Title

My commission expires on 9-3-2019



DAWN G IRVING
NOTARY PUBLIC
STATE OF OHIO
Comm. Expires
September 03, 2019



Self Direct Project Overview & Commitment

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

| | | |
|---|--|--|
| Customer Name | SPEEDWAY SUPERAMERICA LLC | |
| Project Number | AEP-17-20241 | |
| Customer Premise Address | 296 COUNTY ROAD 410, SOUTH POINT, OH 45680-7901 | |
| Customer Mailing Address | 500 Speedway Drive, Enon, OH 45323 | |
| Date Received | 2/24/2017 | |
| Project Installation Date | 10/31/2014 | |
| Annual kWh Reduction | 6,202 | |
| Total Project Cost | \$4,366.84 | |
| Unadjusted Energy Efficiency Credit (EEC) Calculation | \$514.20 | |
| Simple Payback (yrs) | 10.1 | |
| Utility Cost Test (UCT) for EEC | 5.40 | |
| Utility Cost Test (UCT) for Exemption | 0.05 | |
| <i>Please Choose One Option Below and Initial</i> | | |
| Self Direct EEC: 75% | \$385.65 | <input checked="" type="checkbox"/> Initial: <u>WL</u> |
| EE/PDR Rider Exemption | 12 Months (with possible extension up to N/A months after PUCO Approval) | <input type="checkbox"/> Initial: <u>N/A</u> |

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

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

☒ YES ☐ NO

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

Project Overview:

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

As part of the remodel of an existing store, energy efficient reduced wattage T8 and LED lighting were installed in the interior spaces. The project installed interior lighting fixtures whose performances are better than ASHARE 90.1-2007 minimum requirement. In

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

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

Ohio Power Company

SPEEDWAY SUPERAMERICA LLC

John J. Will
Title: Manager
Date: 3/23/2017

By: *Walker Hunt*
Title: Material Coordinator
Date: 3 / 23 / 2017



APPLICATION GUIDELINES

All 2017 AEP Ohio Business Incentives Program projects must be completed and Final Applications received no later than November 10, 2017, in order to qualify for incentives identified in this application.

Step 1: Verify Eligibility

- ✓ Customer must have a valid AEP Ohio account.
- ✓ Equipment/measure must be installed at facilities served by the AEP Ohio account.
- ✓ Project must produce permanent reduction in electrical energy use (kWh).
- ✓ All installed equipment must meet or exceed the specifications in the application.
- ✓ Please see the [Terms and Conditions](#) for Self-Direct or
- ✓ [Terms and Conditions](#) for all other programs for program eligibility and requirements.

Step 2: Complete Applicant Information

- ✓ All fields in customer and project information sections must be completed.
- ✓ Solution Provider/contractor information must be completed if project is not self-performed.

Step 3: Complete the Incentive Worksheet(s)

- ✓ Find and read specifications related to the project.
- ✓ Ensure new equipment/measure meets or exceeds the specifications.
- ✓ Choose the incentive category on the worksheet based on the installed equipment and specifications.
- ✓ Complete all fields (fixture description, operating hours, etc.) on the related worksheet.

Step 4: Sign Customer Agreement

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

Step 5: Submit Pre-Approval Application¹

(For Self-Direct applications, skip to Step 7)

- ✓ Submitting a Pre-Approval Application to determine

qualification and reserve program funds for a project is strongly recommended.

- ✓ All Process Efficiency measures require pre-approval.
- ✓ Complete all fields for Pre-Approval Agreement section.
- ✓ **Pre-Approval Application must be submitted with:**
 - Proposed scope of work (type and quantity of old and new equipment must be listed)
 - Specification sheets for all proposed equipment
 - W-9 form
- ✓ Submit application via email, fax or mail.
- ✓ During the application review, an inspection may be required; the team will contact applicants requiring an inspection for scheduling.

Step 6: Complete Project

- ✓ New equipment must be installed and operational to submit a Final Application.

Step 7: Submit Final Application

- ✓ Submit a Final Application.
- ✓ Use the same application used during pre-approval (if applicable).
 - Change Application Type to Final Application
- ✓ Complete all fields for Final Application Agreement section.
- ✓ Update the application if there are any changes (customer contact, incentive measure, equipment, etc.).
- ✓ **Final Application must be submitted with:**
 - Dated and itemized material invoice
 - External labor invoice (if applicable)
 - If Pre-Approval Application was not submitted, include the documents listed on Step 5
- ✓ Submit application via email, fax or mail.
- ✓ During the application review, an inspection may be required; the team will contact applicants requiring an inspection for scheduling.

Additional steps are required for Self-Direct applications after application submission. Please see the Self-Direct Terms and Conditions for details.

AEP Ohio Business Incentives Program

445 Hutchinson Avenue, Suite 300

Columbus, Ohio 43235

877-541-3048 | aepohiosolutions@clearesult.com

Visit our website at AEPohio.com/solutions

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



CHECKLIST OF REQUIRED ATTACHMENTS

PRE-APPROVAL

- ☐ Completed Applicant Information Form
- ☐ Estimated Total Project Cost
- ☐ Estimated Completion Date
- ☐ Completed Incentives Requested Section of Application
- ☐ Applicable Incentive Worksheets
- ☐ Completed Third-Party Payment Release Authorization Section with W9 (optional)
- ☐ Signed Customer Agreement Form
- ☐ Equipment Specifications
- ☐ Proposed Scope of Work
- ☐ W-9 (Customer's W-9 or 3rd party W-9, if applicable)

FINAL APPLICATION ONLY (NO PRE APP SUBMITTED)

- ☐ Completed Applicant Information Form
- ☐ Completed Incentives Requested Section of Application
- ☐ Applicable Incentive Worksheets
- ☐ Total Project Cost
- ☐ Completion date
- ☐ Completed and Signed Final Payment Agreement and Customer Agreement Forms
- ☐ Completed Third-Party Payment Release Authorization Section with W9 (optional)
- ☐ Itemized Invoices
- ☐ Equipment Specifications
- ☐ Scope of Work
- ☐ W-9 (Customer's W-9 or 3rd party W-9, if applicable)

FINAL APPLICATION (IF PRE APP HAS BEEN SUBMITTED)

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

AEP Ohio Business Incentives Program

445 Hutchinson Avenue, Suite 300
Columbus, Ohio 43235
877-541-3048 | aepohiosolutions@cleareresult.com
Visit our website at AEPohio.com/solutions

Revised Submittal

Please complete below if this is a revised submittal.

Submittal date _____

AEP Project Number (if known) AEP - ____ - ____ - ____



APPLICANT INFORMATION

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

Application Type (Select One)

Customer Information

Business Name _____

Name as It Appears on Utility Bill _____

AEP Ohio Account Number* at Project Site _____ Multiple AEP Ohio Account Numbers for this Project? (Select One)

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

Contact Name _____ Contact Title _____

Mailing Address - where check will be sent

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

Phone _____ Ext. _____ Contact Email _____

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

Project Information

Project Name (if applicable) _____

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

Project Site Address _____ City _____ State ^{OH} Zip _____

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

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

Construction Type (Select One)

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

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



APPLICANT INFORMATION

Solution Provider/Contractor Information (If project is not self-performed by customer)

Contracting Company Name _____

Contact Name _____ Title of Contact _____

Mailing Address _____ City _____ State OH Zip _____

Phone _____ Ext. _____ Contact Email _____

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

Primary Contact Information

Contact Name _____ Title of Contact _____

Phone _____ Ext. _____ Contact Email _____

INCENTIVE SUMMARY TABLE (THIS TABLE SELF-POPULATES FROM WORKSHEETS)

| Incentive Category | Applied for Incentives | Applicable Self- Direct Incentives |
|----------------------------|------------------------|------------------------------------|
| Lighting | | |
| HVAC | | |
| Motors | | |
| Motor Rewind | | |
| Drives | | |
| Compressed Air | | |
| Refrigeration/Food Service | | |
| Agriculture | | |
| Miscellaneous | | |
| Process Efficiency | | |
| NC Lighting (SD Only) | | |
| Total | | |

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



CUSTOMER AGREEMENT

Application Agreement

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

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

Pre-Application

Final-Application

Project Completion Year (Select One) _____

Self-Direct _____

Project Completion Date _____

Total Project Cost _____

Date _____

Total Applied for Incentive _____

Total Requested Incentive¹ _____

Total Self-Direct Requested Incentive² _____

Print Name _____

AEP Ohio Customer Signature _____

Third Party Payment Release Authorization (Optional, NOT APPLICABLE TO Self-Direct)

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

Make checks payable to: Company/Individual _____

Mailing Address _____ City _____ State OH Zip _____

Phone _____ Ext. _____

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

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

Print Name _____

Date _____

Customer Signature (AEP Ohio Customer) _____

SUBMIT VIA EMAIL

PRINT APPLICATION

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

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

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SSF Ordering Information for T8

SAMPLE NUMBER: SSF-232-UNV-EB81-U

| | | | |
|---|---|--|--|
| Tandem Blank=2', 3' or 4' Length 8T=8' Length Series SSF=Commercial Standard Striplite Number of Lamps (Not Included) 1=1 Lamp 2=2 Lamps 3=3 Lamps ⁽¹⁾ Wattage 17=17WT8 (24") 25=25WT8 (36") 28T8=28WT8 (48") ⁽⁷⁾ 32=32WT8 (48") 96T8=59WT8 SL (96") 48T8HO=44W (48") 96T8HO=86W (96") Voltage⁽²⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt UNV=Universal Voltage 120-277 | Options GL=Single Element Fuse GM=Double Element Fuse EL4=Emergency Installed ⁽⁴⁾ (5) EL8=Emergency Installed ⁽⁸⁾ Ballast Type⁽²⁾ EB8=T8 Electronic Instant Start. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 EB8 / PLUS=T8 Electronic Instant Start. High Ballast Factor > 1.13. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 ER8=T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 ER8 / PLUS=T8 Electronic Program Start. High Ballast Factor > 1.13. Total Harmonic Distortion < 10% No. of Ballast 1 or 2 HPT8 Ballast HB8_L=T8 Electronic Instant Start. Low Ballast Factor .77 HB8_N=T8 Electronic Instant Start. Normal Ballast Factor 1.0 HB8_H=T8 Electronic Instant Start. High Ballast Factor 1.15-1.2 HR8_DIM=T8 Electronic Program Start Step Dimming. Ballast Factor .88 HR8_L=T8 Electronic Program Start. Low Ballast Factor .77 max. HR8_H=T8 Electronic Program Start. High Ballast Factor 1.15-1.2 | Options⁽³⁾ RIF1=Radio Interference Suppressor 6-3/18 SJT-C&P-515P=Cord & Plug (120V) (15 AMP) ⁽⁶⁾ 6-3/18 SJT-C&P-L715P=Cord & Plug (277V) (15 AMP) ⁽⁶⁾ PI/CPI=Plug-In Option ⁽⁶⁾ TILW=Tandem In-Line Wiring Option (Consult TILW Option Catalog Page) ⁽⁶⁾ Packaging U=Unit Pack 4B=4 Bulk Packing (48" and 96") | ACCESSORIES (Order Separately) A1B/Spacer-U=Spacer 1-1/2" to 2-1/2" from ceiling (Use 2 Per Fixture) GRP-SSF=Gripper Hanger (Use 2 Per Fixture) AYC-Chain/Set=36" Chain Hanger (Use 1 Set Per Fixture) SCF=Fixed Stem Set (Specify Length) SCS=Swivel Stem Set (Specify Length) SCA=Adjustable 48" Stem Set CLC-SSF=Long Channel Connector SSF SSF-ASY3=3" Asymmetric Reflector (Specify 2', 3', or 4') ⁽⁹⁾ SSF-REV3=3" Asymmetric Reverse Reflector SSF (Specify 2', 3', or 4') ⁽⁹⁾ SSF-SYM3=6" Symmetric Reflector Specify (2', 3' or 4') SSF-SYM12=4-12" Symmetric Reflector WG/SSF-2FT=2' Wire Guard WG/SSF-3FT=3' Wire Guard WG/SSF-4FT=4' Wire Guard TOGGLE=Single Toggle NO. 2 (Specify Length) Y-TOGGLE=Y Toggle NO. 2 (Specify Length) |
|---|---|--|--|

NOTES: ⁽¹⁾ Available in 28T8 and 32 watt. ⁽²⁾ Products also available in non-US voltages and frequencies for international markets. Voltage must be specified when ordered with plugs or emergency ballast. ⁽³⁾ For SilverLining reflector add SS in Catalog Number. Example: SSF-ASY-SS-4. ⁽⁴⁾ Not available for 2' version. ⁽⁵⁾ For other emergency options specify manufacturer part number and consult the factory for availability (example: ELFBP240H). ⁽⁶⁾ Socket brackets left uninstalled. ⁽⁷⁾ When utilizing 28WT8 lamps, HPT8 Ballast must be specified. Other ballast restrictions may apply. ⁽⁸⁾ Available for 96T8, 48T8HO and 96T8HO. ⁽⁹⁾ For T12 or T8 applications only (no T12 Slimline or T12 HO).

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

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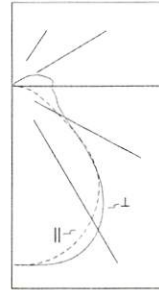
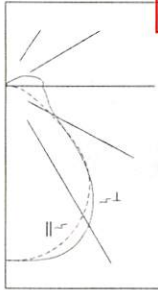
SSF Ordering Information for T12

SAMPLE NUMBER: SSF-220-LTS-120V-U

| | | | |
|--|--|--|--|
| Tandem Blank=2', 3', 4' or 8' Length Series SSF=Commercial Standard Striplite Number of Lamps (Not Included) 1=1 Lamp 2=2 Lamps Wattage 20=20WT12 (24") 30=30WT12 (36") 48=40WT12 SL (48") 48HO=60WT12 HO (48") 96=75WT12 SL (96") 96HO=110WT12 (96") Ballast Start Type LTS=Low Trigger Start (20W only) (120V only) HTS=High Trigger Start (20W only) LRS=Low Rapid Start (30W only) (120V only) HRS=High Rapid Start (30W only) (120V only) | Voltage⁽¹⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt Options⁽¹⁾ GL=Single Element Fuse GM=Double Element Fuse EL4=Emergency Installed ⁽³⁾ (4) Ballast Type^{(1), (4)} Blank=Standard Magnetic Ballast LE3=T12 Electronic Ballast EB2=T12 Electronic Rapid Start. Total Harmonic Distortion < 20% No. of Ballast 1 or 2 | Options⁽²⁾ RIF1=Radio Interference Suppressor 6-3/18 SJT-C&P-515P=Cord & Plug (120V) (15 AMP) ⁽⁵⁾ 6-3/18 SJT-C&P-L715P=Cord & Plug (277V) (15 AMP) ⁽⁵⁾ PI/CPI=Plug-In Option ⁽⁵⁾ TILW=Tandem In-Line Wiring Option (Consult TILW Option Catalog Page) ⁽⁵⁾ ACCESSORIES (Order Separately) A1B/Spacer-U=Spacer 1-1/2" to 2-1/2" from ceiling (Use 2 Per Fixture) GRP-SSF=Gripper Hanger (Use 2 Per Fixture) AYC-Chain/Set=36" Chain Hanger (Use 1 Set Per Fixture) SCF=Fixed Stem Set (Specify Length) SCS=Swivel Stem Set (Specify Length) SCA=Adjustable 48" Stem Set CLC-SSF=Long Channel Connector SSF SSF-ASY3=3" Asymmetric Reflector (Specify 2', 3', or 4') ⁽⁶⁾ SSF-REV3=3" Asymmetric Reverse Reflector SSF (Specify 2', 3', or 4') ⁽⁶⁾ SSF-SYM3=6" Symmetric Reflector Specify (2', 3' or 4') SSF-SYM12=4-12" Symmetric Reflector WG/SSF-2FT=2' Wire Guard WG/SSF-3FT=3' Wire Guard WG/SSF-4FT=4' Wire Guard TOGGLE=Single Toggle NO. 2 (Specify Length) Y-TOGGLE=Y Toggle NO. 2 (Specify Length) | Packaging U=Unit Pack 4B=4 Bulk Packing (48" and 96") |
|--|--|--|--|

NOTES: ⁽¹⁾ Products also available in non-US voltages and frequencies for international markets. ⁽²⁾ For SilverLining reflector add SS in Catalog Number. Example: SSF-ASY-SS-4. ⁽³⁾ Not available for 2' version. For other emergency options specify manufacturer part number and consult the factory for availability (example: ELFBP240H). ⁽⁴⁾ Maximum width clearance for ballast in channel is 2-7/32". ⁽⁵⁾ Socket brackets left uninstalled. ⁽⁶⁾ For T12 or T8 applications only (no T12 Slimline or T12 HO).

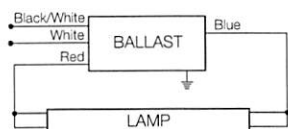
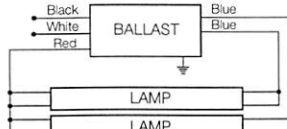
Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.



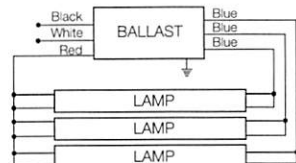
**Normal Ballast Factor
T8 Instant Start
UNV VOLTAGE
High Efficiency Systems****<10% THD High Efficiency Electronic T8 Fluorescent Systems (Normal Ballast Factor)**

| Item Number | OSRAM SYLVANIA Description | Input Voltage (VAC) | Input Current (AMPS) | Lamp Type | Rated Lumens (lm) | No. of Lamps | Ballast Factor (BF) | System Lumens | Input Wattage (W) | System Efficacy (lm/W) |
|-------------|----------------------------|---------------------|----------------------|-----------|-------------------|--------------|---------------------|---------------|-------------------|------------------------|
| 49851 | QHE 1X32T8/UNV ISN-SC | 120-277 | 0.25/0.11 | F032/XP | 3000 | 1 | 0.88 | 2640 | 28 | 94 |
| | | | 0.22/0.09 | F030/SS | 2850 | 1 | 0.88 | 2510 | 26 | 97 |
| | | | 0.21/0.09 | F028/SS | 2725 | 1 | 0.88 | 2400 | 25 | 96 |
| | | | 0.19/0.09 | F025/SS | 2475 | 1 | 0.88 | 2175 | 22 | 99 |
| 49853 | QHE 2X32T8/UNV ISN-SC | 120-277 | 0.47/0.20 | F032/XP | 3000 | 2 | 0.88 | 5280 | 55 | 96 |
| | | | 0.44/0.19 | F030/SS | 2850 | 2 | 0.88 | 5015 | 52 | 96 |
| | | | 0.40/0.18 | F028/SS | 2725 | 2 | 0.88 | 4800 | 48 | 100 |
| | | | 0.36/0.16 | F025/SS | 2475 | 2 | 0.88 | 4355 | 43 | 101 |
| 49855 | QHE 3X32T8/UNV ISN-SC | 120-277 | 0.69/0.30 | F032/XP | 3000 | 3 | 0.88 | 7920 | 83/82 | 95/97 |
| | | | 0.66/0.28 | F030/SS | 2850 | 3 | 0.88 | 7525 | 78/77 | 96/98 |
| | | | 0.61/0.26 | F028/SS | 2725 | 3 | 0.88 | 7195 | 72 | 100 |
| | | | 0.55/0.23 | F025/SS | 2475 | 3 | 0.88 | 6530 | 65/64 | 101/102 |
| 49857 | QHE 4X32T8/UNV ISN-SC | 120-277 | 0.91/0.39 | F032/XP | 3000 | 4 | 0.88 | 10560 | 108/107 | 98/99 |
| | | | 0.86/0.37 | F030/SS | 2850 | 4 | 0.88 | 10030 | 102/101 | 98/99 |
| | | | 0.80/0.35 | F028/SS | 2725 | 4 | 0.88 | 9590 | 95 | 101 |
| | | | 0.71/0.30 | F025/SS | 2475 | 4 | 0.88 | 8710 | 84/83 | 104/105 |

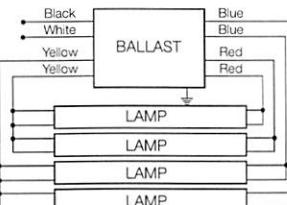
Products listed above are 10 packs.

840 PC Pallet Packs49852 QHE1x32T8/UNV-ISC-PAL 49854 QHE2x32T8/UNV-ISC-PAL
49856 QHE3x32T8/UNV-ISC-PAL 49858 QHE4x32T8/UNV-ISC-PAL**10 PC Banded Packs**49968 QHE1x32T8/UNV-ISC-B 49969 QHE2x32T8/UNV-ISC-B
49970 QHE3x32T8/UNV-ISC-B 49971 QHE4x32T8/UNV-ISC-B**QUICKTRONIC 1x32**

Note: For one lamp application, cap any blue lead. Insulate to 600 volts.

QUICKTRONIC 2x32

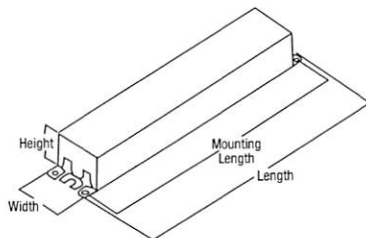
Note: For two lamp application, cap any blue lead. Insulate to 600 volts.

QUICKTRONIC 3x32

Note: For three lamp application, cap any unused blue lead. Insulate to 600 volts.

QUICKTRONIC 4x32**Dimensions:**Overall: 9.5" L x 1.68" W x 1.18" H
Mounting: 8.90"**Packaging:**Quantity: 10 pieces/840 pieces
Weight: 1.6 lbs each (approx)**Wiring:**

Leads only (no connectors provided)



Item Number — 49855 QHE 3 x 32T8 / UNV ISN-SC — Case Size
QUICKTRONIC High Efficiency — Starting/Ballast Factor
Number of Lamps — Line Voltage (120-277V)
Primary Lamp Wattage

Specifications¹**Starting Method:** Instant Start**Ballast Factor:** 0.88**Circuit Type:** Parallel**Lamp Frequency:** > 40KHz**Lamp CCF:** Less than 1.7**Starting Temp:¹**

-20°F for OCTRON T8 lamps;

60°F for SUPERSAVER® T8 lamps

0°F for F040T8

Input Frequency: 50/60 Hz**Low THD:** < 10%**Power Factor:** > 98%**Voltage Range:** 108-305V

UL Listed Class P, Type 1 Outdoor

CSA Certified (where applicable)

70°C Max Case Temperature

FCC 47CFR Part 18 Non-Consumer

Class A Sound Rating

ANSI C62.41 Cat. A Transient Protection

Remote Mounting up to 20 feet¹¹ Operation below 50°F may affect light output or lamp operation — see "Low Temp. Starting" definition.**System Life / Warranty**

QUICKTRONIC products are covered by our QUICK 60+® warranty, a comprehensive lamp and ballast system warranty. For additional details, refer to our QUICK 60+ warranty bulletin.

Ordering Guide

Specifications subject to change without notice.

CR Series with Cree SmartCast® Technology

CR14™ 1' x 4' Architectural LED Troffer

Product Description

The CR14™ architectural LED troffer with Cree SmartCast® Technology, Cree's intelligent light solution, provides extreme energy productivity and code compliance - all with installation that's so intuitive and simple, it just works. Cree SmartCast® Technology products incorporate integrated ambient and occupancy sensing and wireless communication to achieve energy savings and extended product life resulting in lower electricity bills, reduced maintenance, and an improved total cost of ownership over traditional lighting control systems. And now, CR Series troffers with Cree SmartCast® Technology offer field adjustable color temperatures, simplifying project specification, ordering and installation by allowing one troffer to be used in any space regardless of color temperature preference.

Performance Summary

Utilizes Cree TrueWhite® Technology

Room-Side Heat Sink

Efficacy: 100-131 LPW

Initial Delivered Lumens: 4,000 lumens

Input Power: 30.5-40 watts

CRI: 90 CRI

CCT: 3000K, 3500K, 4000K, 5000K, adjustable CCT

Input Voltage: 120-277 VAC

Limited Warranty*: 5 years

Controls: Cree SmartCast® Technology

Mounting: Recessed*

* See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed

Drywall Grid Adapter

DGA-24WH1

Cree SmartCast® Technology Configuration Tool†

CCT-CWC-1

- One required per project when CMA control is selected

Cree SmartCast® Technology Face Plates††

CFP-1-WH

- Matching Cree face plate, 1-gang, white

CFP-2-WH

- Matching Cree face plate, 2-gang, white

CFP-3-WH

- Matching Cree face plate, 3-gang, white

Cree SmartCast® Technology Wireless Dimmer††

CWD-CWC-WH

Cree SmartCast® Technology Wireless Switch††

CWS-CWC-WH

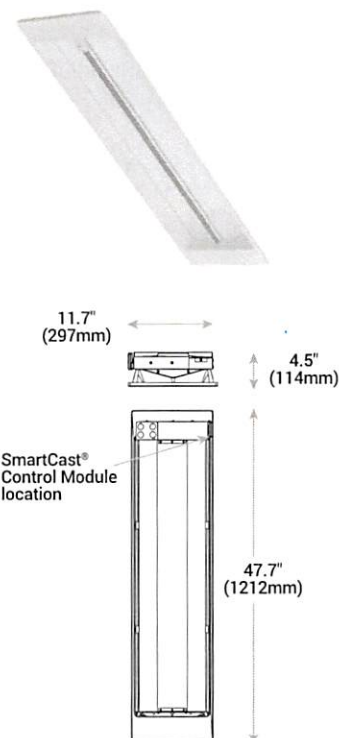
† Refer to the [Configuration Tool spec sheet](#) for more details†† Refer to the [Wireless Dimmer Smartcast Control spec sheet](#) for more details

Ordering Information

Example: CR14-40L-35K-CMA

| CR14 | | | | | |
|---------|---|--|-----------------------|--|---|
| Product | Initial Delivered Lumens | CCT | Voltage | Control | Options |
| CR14 | 40L 40W, 4,000 lumens – 100 LPW 40LHE 30.5W, 4,000 lumens – 131 LPW (30K) 32W, 4,000 lumens – 125 LPW (35K) 33W, 4,000 lumens – 121 LPW (40K) 34.5W, 4,000 lumens – 116 LPW (50K) | 30K 3000K 35K 3500K 40K 4000K 50K 5000K ACK Adjustable CCT: 3000K-5000K - Available only with 40L - Factory set at 4000K - Adjustable in 500K increments | Blank 120-277 Volt | CMA Cree SmartCast® Technology - Integral motion and ambient sensors and wireless communication | EB10W Emergency Battery Backup - 40L-ACK: 1,000 lumens - 40LHE-30K: 1,300 lumens - 40LHE-35K: 1,250 lumens - 40LHE-40K: 1,200 lumens - 40LHE-50K: 1,150 lumens |

* Acceptable for use with standard 9/16 T-Bar or larger when installed per installation instructions. Consult factory for non-standard grid applications



Rev. Date: V5 02/04/2016

US: lighting.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507



GE
Lighting

72866 - F28T8/XLSPX41ECO

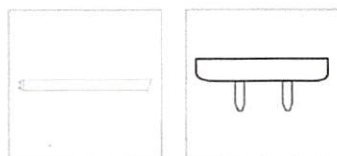
GE Ecolux® UltraMax™ Starcoat® T8

• Passes TCLP, which can lower disposal costs.



Photo
Not Available

Circle E



GENERAL CHARACTERISTICS

| | |
|-----------------------------------|--------------------------------------|
| Lamp Type | Linear Fluorescent - Straight Linear |
| Bulb | T8 |
| Base | Medium Bi-Pin (G13) |
| Rated Life (NOM) | 45000.0 h |
| Rated Life (instant start) @ Time | 24000 h @ 3 h |
| Rated Life (rapid start) @ Time | 34000 h @ 12 h |
| | 45000.0 @ 3.0/50000.0 @ 12.0 h |
| Bulb Material | Soda lime |
| Starting Temperature (MIN) | 15.0 °C |
| Mercury Content (NOM) | 2.95 mg |
| Picograms of Mercury (NOM) | 25.6 pg |
| Additional Info | TCLP compliant |
| Primary Application | Energy Saving |

PHOTOMETRIC CHARACTERISTICS

| | |
|---|----------|
| Initial Lumens (NOM) | 2675.0 |
| Mean Lumens (NOM) | 2515.0 |
| Nominal Initial Lumens per Watt (NOM) | 95.53571 |
| Color Temperature (NOM) | 4100.0 K |
| Color Rendering Index (CRI) (NOM) | 82.0 |
| S/P Ratio (Scotopic/Photopic Ratio) (NOM) | 1.8 |

ELECTRICAL CHARACTERISTICS

| | |
|---|---------------|
| Wattage (NOM) | 28.0 |
| Open Circuit Voltage (instant start) Min @ Temperature | 550 V @ 15 °C |
| Cathode Resistance Ratio - Rh/ Rc (MIN) | 4.25 |
| Cathode Resistance Ratio - Rh/ Rc (MAX) | 6.5 |
| Lamp Current (NOM) | 275.0 mA |
| Current Crest Factor (MAX) | 1.7 |

DIMENSIONS

| | |
|--|----------------------|
| Maximum Overall Length (MOL) (NOM) | 48.000 in(1219.2 mm) |
| Minimum Overall Length (NOM) | 47.780 in(1213.6 mm) |
| Nominal Length (NOM) | 48.000 in(1219.2 mm) |
| Bulb Diameter (DIA) (MIN) | 0.940 in(23.9 mm) |
| Bulb Diameter (DIA) (MAX) | 1.100 in(27.9 mm) |
| Bulb Diameter (DIA) (NOM) | 1.000 in(25.4 mm) |
| Max Base Face to Base Face (A) (NOM) | 47.220 in(1199.4 mm) |
| Face to End of Opposing Pin (B) (MIN) | 47.400 in(1204.0 mm) |
| Face to End of Opposing Pin (B) (MAX) | 47.500 in(1206.5 mm) |
| End of Base Pin to End of Opposite Pin End (C) (NOM) | 47.670 in(1210.8 mm) |

PRODUCT INFORMATION

| | |
|----------------------------------|------------------|
| Product Code | 72866 |
| Description | F28T8/XLSPX41ECO |
| Standard Package | Case |
| Standard Package GTIN | 10043168728666 |
| Standard Package Quantity | 36 |
| Sales Unit | Unit |
| No Of Items Per Sales Unit | 1 |
| No Of Items Per Standard Package | 36 |
| UPC | 043168728669 |



APPROVED



QuietQube® i-1470C Remote Ice Cube Machine

Air-Cooled Ice Cube Machine with Patented CVD Technology®

QuietQube® i-1470C Remote Ice Cube Machine
Air-Cooled Ice Cube Machine with Patented CVD Technology®

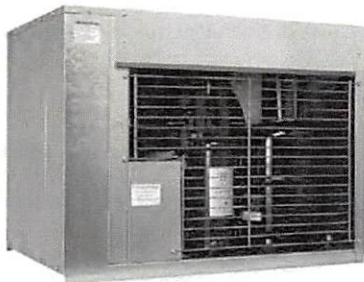
Model

☐ ID-1472C

☒ IY-1474C



ID-1472C Ice Cube Machine - 115V



ICVD Condensing Unit



ID-1472C Ice Machine
on a B-970 Bin



Two ID-1472C Ice Machines
on a F-1650 Bin

QuietQube Series Remote System consists of a remote condensing unit, interconnecting refrigerant lines, ice machine head section along with an ice storage bin, countertop dispenser, or floor dispenser. All ordered separately. QuietQube ice machine with CVD condensing unit is designed as a Maniowoc system and cannot be used with any other ice machine or remote condenser brand.

- **Space-Saving Design** – Up to 1,425 lbs. (646 kgs.) daily ice production and only 30" (76.20 cm) wide.
- **Quiet Operation** - eliminates most noise from the refrigeration system. Promotes a relaxing atmosphere.
- **Intelligent Diagnostics** – provide 24 hour preventative maintenance and diagnostic feedback for trouble free operation.
- **Acoustical Ice Sensing Probe** – for reliable operation in challenging water conditions.
- **EasyRead Display** – communicates operating status, cleaning reminders, and asset information through a blue illuminated display.
- **Programmable Ice Production** – by On/Off Time, Ice Volume or Bin Level (with accessory bin level control) further improves energy efficiency and savings.
- **Easy to Clean Foodzone** – Removable water-trough, distribution tube, splash shield, and sensing probes for fast and efficient cleaning. Select components made with AlphaSan® antimicrobial.
- **DuraTech™ Exterior** – provides superior corrosion resistance. Stainless finish with innovative clear-coat resists fingerprints and dirt.
- Available **LuminIce™ Growth Inhibitor** controls the growth of bacteria and yeast within the foodzone.



Ice Shape



Half Dice
3/8" x 1 1/8" x 7/8"
(.95 x 2.86 x 2.22 cm)



Dice
7/8" x 7/8" x 7/8"
(2.22 x 2.22 x 2.22 cm)



US LISTED



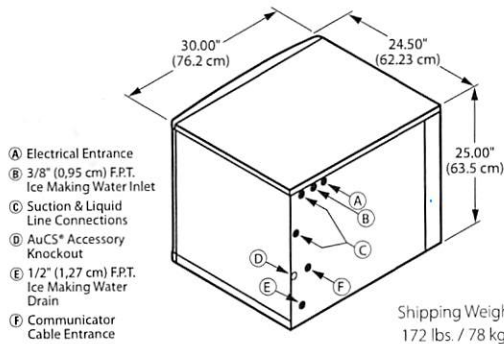
COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
= ISO 9001:2008 =



Air-Cooled Ice Cube Machine with Patented CVD Technology®

QuietQube® i-1470C Remote Ice Cube Machine

i-1470C Ice Machine



Specifications

Operating Limits:

- Ambient Temperature Range: 35° to 110°F (1.7° to 43.3°C)
- Water Temperature Range: 35° to 90°F (1.7° to 32.2°C)
- Water Pressure Ice Maker Water In: Min. 20 psi (137.9 kPa) Max. 80 psi (551.1 kPa)

Ice Machine Electric

115/60/1 standard. (230/50/1 also available, consult factory.)
Total Amps: 1.1
Max. fuse size: 15 amps
HACR-type circuit breakers can be used in place of fuses.

Remote Air-cooled Ice Machine

| Model | Ice Shape | Ice Production 24 Hours | | Power kWh/ 100 lbs @ 90°/70°F* | ENERGY STAR |
|----------|-----------|-------------------------|------------------------|--------------------------------|-------------|
| | | 70°Air/ 50°F Water | 90°Air/ 70°F Water* | | |
| ID-1472C | dice | 1,330 lbs. 603 kgs. | 1,136 lbs. 515 kgs. | 4.43 | ★ |
| IY-1474C | half-dice | 1,425 lbs. 646 kgs. | 1,200 lbs. 544 kgs. | 4.31 | ★ |

Water usage/100 lbs./45.4 kgs. of Ice
Potable Water*: 20 gallons, 75.7 liters



*Ratings Certified in Accordance with AHRI Standard 810.

Ice machine for use with ice storage bin or ice dispenser and CVD condensing unit all ordered separately.

kWh per 100 lbs. is total power of ice machine and condensing unit. Ice machine is 1 ph only. Condensing unit is 1 ph or 3 ph.

Accessories

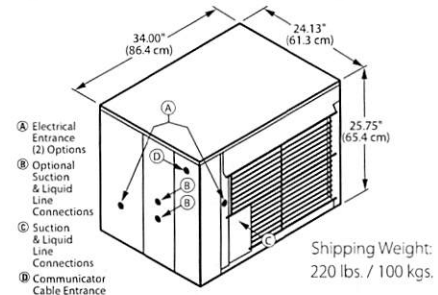
LumInce™ Growth Inhibitor
reduces yeast and bacteria growth for a cleaner ice machine.



AuCS®
Automatic Cleaning System purchased as an option and installed in the field.



iCVD-1496 Remote Condensing Unit



Condensing Unit Electric

208-230/60/1 standard. 208-230/60/3 and 230/50/1 also available. 50 Hz version of this model meets the international standard, IEC60335-1, requirements for "T-tropical rating," the most severe duty rating an ice machine can obtain, (consult factory). HACR-type circuit breakers can be used in place of fuses.
Note: QuietQube ice machine power supply is wired independent of CVD condensing unit.

Min. circuit ampacity 20 1ph / 15 3ph

Max. fuse size: 20 amps 1ph / 15 amps 3ph

HACR-type circuit breakers can be used in place of fuses.

Operating Limits:

- Ambient Temperature Range: -20° to 130°F (-29° to 54°C)

BTU Per Hour: 17,800 (average) 20,500 (peak)

Compressor: Nominal rating: 1.75 HP

Installation Information and Dimensions:

Maximum Line Length

—100' (30.5 m).*

Maximum Vertical Rise*

—35' (10.7 m) above ice machine.

Maximum Vertical Drop

—15' (4.5 m) below ice machine.

*A rise over 20' (6 m) requires S-Trap Kit K-00166 - ordered separately.

Standard Interconnecting Tubing with Required Communication Wire*

Communication wire comes with each of the following line sets

| Model | Line Length | | Weight | |
|-------|-------------|----|--------|------|
| | ft. | m. | lbs. | kgs. |
| RC-25 | 20 | 6 | 14 | 6 |
| RC-35 | 30 | 9 | 20 | 9 |
| RC-55 | 50 | 15 | 31 | 14 |

*When using a non-Manitowoc line-set, a 186A 5-conductor communication cable must be installed between the head and condenser sections.

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Summary: Application Speedway Superamerica LLC and Ohio Power Company for approval of a special arrangement agreement with a mercantile customer electronically filed by Mr. Ryan F.M. Aguiar on behalf of Ohio Power Company