ENERGY USE EQUIPMENT

PRODUCT TYPE

SYSTEM AND EQUIPMENT: **PROCESS LOAD**

HAND DRYERS

thyzo

Maximum hygienic hand dryer

Cover: ABS

Dimensions: 617 high x 300 wide x 195 deep mm

Weight: 9,55 kg

Total electrical power: 1760 W

Operation: Automatic activation when the user Sensor puts his hands in the drying area

Available colors: 

System drying by air currents high speed.

How to use: put your hands in the drying area, dry hands wait a few seconds and remove.

Drying time: 10-15 seconds.

Cataloge/productsheet

SUPERDRY

Model: 1303.S, 1303.W, 1303.C, 1304.S, 1304.W, 1304.C

Date: Dec 2014

Notes

1. The information contained in this document corresponds to an approximation of the possible compliance of the category corresponding to the environmental certification system chosen to study (LEED and VERDE) based on the information the company has provided. To ensure the compliance possibility of such credits will always be necessary to verify the information and data provided by the company, and make the relevant specific study (even though the company has already made a preliminary study). This document is not a product certification or guarantee compliance with local laws.
2. Obtaining the percentage reduction in impact or points obtained in the certification depends on the overall performances of all materials and products used in building construction to certify.
3. The findings of this study apply only to the products mentioned in this report and are subject to the stability of the technical conditions of the product, and the stability of the requirements addressed by environmental certification systems under study.
4. In the absence of changes in the characteristics of the product referred or variation in versions of the certification tool that affect product evaluation, the validity of the record shall be 2 years from the date of publication of this report, February 2014
5. It is important to note that GBCI is the ultimate "decider" as to whether or not a specific product will positively contribute towards earning a LEED certification

LEED V3

RATING SYSTEM	NC & MR	CS	S	CI	EBOM	R-CN	R-ID	HC
POINTS	1-19	3-21						

CATEGORY EA

Crédit : EAp2 y EAc1

INTENT OF CREDITS

To reduce the environmental and economic harms of excessive energy use by achieving a minimum level of energy efficiency for the building and its systems..

AIM OF THE STUDY

The aim of the study is to assess the improvements incorporating GOLD RX Air Handling Units in a proposed building HVAC system compare to baseline system as defined in the ANSI/ASHRAE/IESNA 90.1-2007

EVALUATION METHOD

Option 1. Whole building energy simulation (Baseline process energy costs as percent of total energy costs 2% improvement in the proposed building performance rating for MR)

EAp2

Calculate the baseline building performance according to ANSI/ASHRAE/IESNA Standard 90.1–2007, Appendix G, with errata (or a USGBC-approved equivalent standard for projects outside the U.S.), using a simulation model.

Option 1. Whole building energy simulation (1-19 points for NC)

EAc1

The project team will document improvement in the proposed building performance rating for ANSI/ASHRAE/IESNA Standard 90.1-2007. Compare the proposed model with the baseline model to determine the anticipated energy cost savings

COMPLIANCE WITH REQUIREMENTS

While a hand dryer is considered a process load and therefore cannot be included in the whole building energy simulation, a high efficiency, high-speed hand dryer might be considered a measure that reduces the process load.

POINTS

EAp2: 2 % improvement in the proposed building performance rating: -> Minimum Energy Performance Compliance contribution : 1,5%

EA Credit 1 points documented = 2% improvement

CONDITIONS FOR THE IMPLEMENTATION OF CREDIT

CATEGORIA EA

Credit: EAp2 y EAc1

Receptacle and process loads, such as those for office and other equipment, shall be estimated based on the building type or space type category and shall be assumed tobe identical in the proposed and baseline building designs, except as specificallyauthorized by the rating authority. These loads shall be included in simulations of thebuilding and shall be included when calculating the baseline building performanceand proposed building performance.

Where

no efficiency requirements exist, power and energy rating or capacity of theequipment shall be identical between the baseline building and the proposeddesign with the following exception: variations of the power requirements,schedules, or control sequences of the equipment modeled in the baseline buildingfrom those in the proposed design shall be allowed by the rating authoritybased upon documentation that the equipment installed in the proposed designrepresents a significant verifiable departure from documented conventional practice

CASE STUDY

The case study corresponds to a typical office building with 8 floors in Madrid, 6.000 m^2 conditioned area and 10 m^2/people. Total energy for HVAC, Domestic Hot Water, Lighting and Miscellanea Equipment = 1984 MBTU/Year (eQuest 3-65 Program Simulation)

Identify the number of building occupants by occupancy type.

Full time staff : 600 peoples

Number of toilet uses by occupant: 3 time/day

Number of days/year: 250

Total Energy use for process loads proposed using VELTIA hand dryers : 600*3*250 * 10s * 1,76 kW /3600 s/h= 2.200 kWh/year= 8 MBTU/year

Proposed Building Energy use for HVAC, Lights, DHW and Miscellaneous = 1984 MBTU

Total energy proposed Building: 1992 MBTU

Total Energy use for process loads for regular hand dryers (Total power 2.400W time to dry 35 sec): 600*3*250 * 2400 * 35 kW /3600 s/h= 10.500 kWh/year= 35,8MBTU/year

Total energy use for baseline building: 1984 + 35,8 MBTU = 2.019,8

1,5 % of improvement in the proposed building performance rating

LEED V3

RATING SYSTEM	NC & MR	CS	S	CI	EBOM	R-CN	R-ID	HC
POINTS					**1**			

CATEGORY: MATERIAL AND RESOURCES

Credit 6: Solid Waste Management – Waste Stream Audit

INTENT OF CREDITS

During the performance period, conduct a waste stream audit of “ongoing consumables” and establish a baseline that identifies type and amount of waste. Then, identify opportunities for waste diversion.

EVALUATION PROCCEDURE

Calculation required for this credit included aggregating various portion of the waste streams and determining the percentage of each waste category that is being diverted from land field or incineration disposal.

Step1: determine the appropriate unit for the waste steam audit.

Step 2: determine the appropriate waste category for the audit.

Step 3: Stablish a time interval for the audit that is representative of the building waste stream and reflects a normal business and collection cycle.

Step 4: Determine the volume or weight of the waste that is disposed of landfill or incinerated and and the waste that is reused, recycled composted or otherwise diverted for conventional disposal.

Step 5: For each category of waste, sort the mayor types and determine their volume or weight

STEP 6. For each waste category, add the volume or weight of conventionally disposed waste to the volume or weight of the alternative disposed waste to identify the total volume or weight of that waste category for the audit period

COMPLIANCE WITH REQUIREMENTS

Hand dryers could be used to replace paper towels, which will reduce waste post-audit. However, the specific terms used in the credit are “identify opportunities for increased recycling and waste diversion”.

POINTS

A hand dryer would eliminate, not divert, the paper towel waste, so it’s questionable whether it would help to earn this credit.GBCI is the ultimate "decider" as to whether or not high speed hand dryers product will positively contribute towards earning points on this credit.

LEED V3

RATING SYSTEM	NC & MR	CS	S	CI	EBOM	R-CN	R-ID	HC
POINTS					**1**			

CATEGORY: MATERIAL AND RESOURCES

Credit 7: Solid Waste Management – Ongoing

INTENT OF CREDITS

Targets waste generated by “ongoing consumables” with a low cost per unit (i.e. paper) and batteries. In order to earn the 1 point, 50% of the ongoing consumables must be reused, recycled or composted.

EVALUATION PROCCEDURE

Waste diversion includes sources reduction, reuse, and recycling. The amount for each method of diversion must be quantified accurately and supported with documentation. To calculate the proportion of ongoing consumable in the waste stream that have been reused, recycled or composted, using the following process:

Step 1: Using hauler reports or similar reliable data, determine the total ongoing consumable waste volume or weight for the performance periode

Step2: Using hauler reports or similar reliable data, determine the volume or weight of the ongoing consumable waste that was diverted from conventional disposal via reuse, recycling or composting.

Step 3: Calculate the portion of ongoing consumables waste reused recycled or composted

COMPLIANCE WITH REQUIREMENTS

A hand dryer would replace the waste, it would not divert the waste, as the credit intends.

POINTS

GBCI is the ultimate "decider" as to whether or not high speed hand dryers product will positively contribute towards earning points on this credit.

LEED V3

RATING SYSTEM	NC & MR	CS	S	CI	EBOM	R-CN	R-ID	HC
POINTS	1	1						

CATEGORY: INDOOR ENVIRONMENTAL QUALITY

Credit 3.1 - Green Cleaning – High Performance Cleaning Program

INTENT	To reduce the exposure of building occupants and maintenance personal to potentially hazardous chemical, biological and particulate contaminants, which adversely affect air quality, human health, building finishes, building systems and the environment
EVALUATION METHOD	Create a cleaning plan that addresses “sustainable and effective cleaning and hard floor maintenance”. The plan should reduce the exposure of building staff and occupants to hazardous contaminants.
REQUIREMENTS COMPLIANCE	High speed hand dryers remove germs from hands would be considered to reduce exposure to contaminants. Therefore, a hand dryer would count as part of the high-performance cleaning program
POINTS	GBCI is the ultimate "decider" as to whether or not high speed hand dryers product will positively contribute towards earning points on this credit.

LEED V3

RATING SYSTEM	NC & MR	CS	S	CI	EBOM	R-CN	R-ID	HC
POINTS					**1-4**			

CATEGORY: INNOVATION IN OPERATIONS

Credit 1 – Innovation in Operations

INTENT	To create additional environmental benefits that are not addressed in the LEED EB:O&M rating system
EVALUATION METHOD	One point is awarded for each innovation achieved. Focus to the intent of the proposed innovation credit
REQUIREMENTS COMPLIANCE	Fast Hand Dryer can earn Innovation in Design Points because it is 80% more energy efficient than other hand dryers, 95% more cost-effective than paper towels
POINTS	It doesn't seem that a hand dryer alone could earn an IO point. It would most likely have to be part of a greater initiative that has not been addressed in the LEED rating system to earn Innovation credits.

LEED V3

RATING SYSTEM	NC & MR	CS	S	CI	EBOM	R-CN	R-ID	HC
POINTS					**1-4**			

CATEGORY: INNOVATION IN OPERATIONS

Credit 3 – Documenting Sustainable Cost Impacts

INTENT

Track operating costs of the building during the performance period and compare with operating costs for the previous 5 years or length of building occupancy (whichever is shorter). Identify positive cost impacts of sustainable improvements.

EVALUATION METHOD

Tracking the costs and saving generated by sustainability measures taken in the building is the essential step toward understanding the financial case for sustainable building operation and maintenance.

REQUIREMENTS COMPLIANCE

Since high-speed hand dryers are energy efficient, they can reduce energy bills. Also, the purchase of paper towels would no longer be necessary, reducing costs.

POINTS

It doesn't seem that a hand dryer alone could earn an IO point. It would most likely have to be part of a greater initiative that has not been addressed in the LEED rating system to earn Innovation credits.