CONSTRUCTION INDUSTRY COUNCIL
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CONSTRUCTION INDUSTRY COUNCIL

CIC GREEN PRODUCT CERTIFICATION

Assessment Standard

Air Handling Unit

CIC GREEN
PRODUCT CERTIFICATION

(Version 2.0)

Air Handling Unit

Summary of Assessment Criteria

CORE CRITERIA

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<tr><th>Basic</th><th>+Bonus</th></tr>
<tr><td>Product Information</td><td>Provide following information with delivered products or made accessible to public:
• Country of origin
• Basic product specifications
• Installation method
• Instructions for consumer product disposal
• Operation & Maintenance Manual</td><td>Documentation including but not limited to product catalogue, technical datasheet, webpages</td><td>5</td><td>-</td><td>4.1.1</td></tr>
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<tr><td>Efficiency Metrics</td><td>Fan Efficiency:
The fan operating efficiency at all intended operating points shall not be less than 15 percentage point below the fan peak total efficiency as required in AMCA 205-12. Products shall use forward or backward curved fan with airfoil blades. Points are awarded for demonstrating compliance of Fan Efficiency Grade (FEG) as listed below:
<table><tr><th>Points</th><th>Efficiency Grade</th></tr><tr><td>15 Basic</td><td>>FEG67</td></tr><tr><td>15 Basic
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<tr><td></td><td>Motor Efficiency:
Motors used for the fan in the AHU shall satisfy the efficiency classification in IEC 60034-30-1. Points are awarded for demonstrating compliance of motor efficiency class as per below.

<table><tr><th>Points</th><th>Efficiency Class</th></tr><tr><td>15 Basic</td><td>IE3</td></tr><tr><td>15 Basic
+ 5 Bonus</td><td>IE4</td></tr></table></td><td>Documentation including but not limited to product catalogue and test reports</td><td>15</td><td>+5</td><td>4.5.1.2</td></tr>
<tr><td>System Performance and Reliability</td><td>Casing Performance:
All products shall meet the basic requirements of casing performance in Table 5 including but not limited to mechanical strength, air leakage, thermal transmittance, thermal bridging and acoustic insulation.
5 bonus points will be granted if 3 out of 5 bonus criteria are met.</td><td>Documentation including but not limited to product catalogue and test reports</td><td>5</td><td>+5</td><td>4.5.2.1</td></tr>
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</table>

NON-CORE CRITERIA

Criteria	Requirements	Verification	Points +Bonus	Index
CARBON				
CFP quantification/ EPD Report	Provide a life cycle assessment report with the carbon footprint of products (CFP), covering at least A1 to A3 endorsed by a third-party critical review OR provide an Environmental Product Declaration (EPD)	CFP quantification report **OR** Environmental Product Declaration (EPD)	+5	4.2.1
RESOURCE				
Circularity	Recyclability: Developed a recycling plan for the product and declared options for reuse, recycling, recovery and disposal. The plan shall include the following and made available to public.	Recycling plan	+5	4.3.1.1
	Packaging Requirement: The packaging materials shall not contain halogenated plastics; OR Shall be comprised of 100% recycled materials, readily recyclable materials or decomposable materials; OR Shall not be impregnated, labelled, coated or otherwise treated in a manner, which would prevent or significantly limit recycling.	Documentation on packaging materials used	+5	4.3.1.2
	Design For Disassembly: • The blowers and motors shall be demountable from enclosure for cleaning, repair, replacement or maintenance purpose. • Fan impeller scroll casing shall be removable for fan blades cleaning.	Documentation such as product label, product catalogue, and written declaration with date-stamped photographs	+5	4.3.1.3
Waste Management	Waste Management Plan: Implement effective Waste Management Plan detailing the policies, procedures and/or a waste management program covering manufacturing operations.	Waste management programme	+5	4.3.2.1
Water Management	Option A: Water Consumption Reporting: Report both potable and non-potable water usage in the production process of the past year.	Water consumption report	+5/ +10	4.3.3.1

Criteria	Requirements	Verification	Points +Bonus	Index
	Water Recycling Program: Develop and implement water recycling program during the manufacturing process.	Documentation on water recycling		4.3.3.2
	Option B: Water Management System: Process valid certificate under ISO 14046: Water Footprint Assessment	ISO 14046 Certificate issued by accredited certification body		4.3.3.3
Energy Management	Option A: Energy Management Plan: Implement effective energy management policies and procedures and/or an energy management programme.	Energy management plan	+5/ +10	4.3.4.1
	Option B: Energy Management System: Possess valid certificate under ISO 50001: Energy management systems.	ISO 50001 Certificate issued by accredited certification body		4.3.4.2
ENVIRONMENT				
Environmental Management	Environmental Management System: Manufacturer shall possess valid certification of ISO 14001: Environmental management systems or EU Eco-Management and Audit Scheme (EMAS).	ISO 14001 or EMAS Certificate issued by accredited certification body	+5	4.4.1.1
Regional Product	Regional Manufactured Equipment: The manufacturing location should be located within an 800km radius of HKSAR by road transportation; within a 1,600km radius by rail transportation; or within a 4,000km radius by sea transportation.	Location map	+5	4.4.2.1
Human Toxicity and Ecosystem Impact	Hazardous Substances: Hazardous substances shall not exceed the acceptance levels specified in Section 4.4.3.1.	Laboratory test report(s) or self-declaration letter	+5	4.4.3.1
PERFORMANCE				
System Performance and Reliability	Heat Recovery: All heat exchangers shall be fitted with seals to minimize air leakage; the heat recovery classes at balanced mass flow conditions (1:1) shall be fulfilled the following requirements of ηe 1:1 min [%] ≥ 71 with ηe values based on calculation according to DIN EN 13053 or equivalent.	Documentation including but not limited to product catalogue and test reports	+5	4.5.2.2

Criteria	Requirements	Verification	Points +Bonus	Index
INNOSMART				
Innovations & Additions	Innovations & Additions: Incorporating various smart technologies to improve efficiency, reduce energy consumption, and optimize performance	Narrative with supporting	+5	4.6.1
		Subtotal:	+70	

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1. INTRODUCTION

1.1 PURPOSE

The CIC Green Product Certification Scheme (the "Scheme") is a green product labelling scheme, owned by the Construction Industry Council (CIC) and implemented by the Hong Kong Green Building Council (HKGBC). The primary goal of the scheme is to support Hong Kong's transition to a low-carbon economy by encouraging the adoption of environmentally friendly construction practices.

With the Green Product Certification, various stakeholders, including consumers, building professionals, construction practitioners and policymakers, can easily and unequivocally identify environmentally preferable construction materials and building products. This certification serves as a reliable indicator of a product's sustainability, helping to drive market demand for greener options.

To ensure the credibility and effectiveness of the certification, the CIC and the HKGBC has jointly developed this Technical Assessment Standards (the "Standard"), which sets out the assessment criteria and their benchmarks to govern the application and award of a label under the Scheme. The comprehensive assessment evaluates the overall sustainability of construction materials and building products across multiple dimensions. These dimensions include environmental impact, resource efficiency, technical performance, and the use of smart manufacturing technologies.

The Standard is divided into two main parts:

- General Requirements (Refer to General Requirements provided in separate document). This part introduces Scheme's framework, outlines the application procedure, and details the grades.

- Technical Requirements (This document refers). This part defines the principles, requirements and guides for quantifying and reporting the products' carbon footprint (CFP), along with other sustainability assessment criteria and scoring standards.

This Standard neither modifies nor supersedes laws and regulations. Compliance with this Standard is not a substitute for, and does not assure, compliance with any applicable laws or regulations. Compliance with all applicable laws and regulations is a prerequisite for the manufacturing and marketing of the product.

1.2 BACKGROUND

Air handling unit (AHU) is a device that regulates and circulates the air supplied into the buildings. It may be designed to supply constant or variable air volume for low-, medium- or high-velocity air distribution. The air delivered into the building will normally undergo thermo-hygrometric and indoor air quality treatment specified by each project. AHUs collect and mix outdoor air with that returning air from building spaces. Before discharging to the buildings, AHUs treat the air by filtering, cooling and/or heating, humidifying and/or dehumidifying. AHUs can provide functions of ventilation, removal of dust, gas, outdoor and microorganisms, heating, cooling, humidification and dehumidification, heat recovery and regeneration.

Air handling unit can place a significant burden on the environment. With increasing environmental claims of air handling unit in the market, a more comprehensive and systematic approach to assess the environmental impacts of the air handling unit shall be developed. The aim of this Standard is to help designers and end-users choosing greener products by conserving resources, reducing the amount of waste disposal in landfills and reducing the impact to human health throughout the life cycle of air handling unit. The development of the assessment criteria in this Standard has made references to worldwide relevant eco-labelling schemes and some existing life cycle assessment (LCA) studies.

2. SCOPE

The scope of this Standard is applicable to both ‘blow through’ and ‘draw through’ types of AHUs.

Note:

ONE application is only eligible for **ONE** product series. All the related products have to be listed on the submitted documents. Each application should specify the product code / serial number.

3. DEFINITIONS

Applicant:	Organisations which apply for the label under the CIC Green Product Certification of the Construction Industry Council
ASTM:	American Society for Testing and Materials
AMCA:	Air Movement and Control Association International, Inc.
GB:	Chinese National Standards
BS:	British Standards
CIC:	Construction Industry Council

CNAS:	China National Accreditation Service for Conformity Assessment
DIN:	German institute for standardisation
EN:	European Standard
HKAS:	Hong Kong Accreditation Service
HKGBC:	Hong Kong Green Building Council
HOKLAS:	The Hong Kong Laboratory Accreditation Scheme
ISO:	International Organisation for Standardisation
MSDS:	Material Safety Data Sheet. To qualify as suitable, MSDS and information therein must not be more than 5-years old

4. EVALUATION CRITERIA

A product to be assessed shall meet all the minimum requirements of the "Core Criteria" in order to be awarded a "Green" (i.e. a "pass" grade) Label under the Scheme. Bonus points may be awarded if the product meets the "Non-core Criteria" and a "Bronze", "Silver", "Gold" or "Platinum" Label will be awarded according to the total points accumulated, as shown in Table 1.

Table 1 Benchmarks for grading

Points achieved	Grade to be awarded
90 or above	Platinum
80 – 89	Gold
70 – 79	Silver
60 – 69	Bronze
50 – 59	Green
Below 50	No label

All submissions and documentations shall be endorsed by the Chief Executive Officer or other authorised persons of the Applicant to demonstrate conformance to the assessment criteria. All certification, laboratory report and documentation must be valid during the assessment process and labelling period. The validity of all laboratory report and documentation shall be within 5 years from the date of issue. The chemical tests should be conducted by either a third party or the manufacturer, providing that they have obtained ISO 17025 certification or relevant national accreditations, such as HOKLAS or CNAS.

4.1 BASIC INFORMATION

4.1.1 Product Information – Core Criteria

The Applicant is required to achieve 5 Basic Points under this section.

Requirements

5 Basic Points for providing following information with delivered products or made accessible to public:

- Country of origin
- Basic product specifications
- Installation method
- Instructions for consumer product disposal
- Operation & Maintenance Manual

Verification

Documentation showing the product information and instructions, including but not limited to product catalogue, technical datasheet, webpages and/or any other information freely accessible by customers.

4.2 CARBON

4.2.1 CFP Quantification/ EPD Report – Non-core Criteria

The Applicant can achieve maximum 5 Bonus Points under this section.

Requirements

5 Bonus Points for providing life cycle assessment report for quantifying and reporting the carbon footprint of products (CFP), covering at least A1 (raw material supply), A2 (transport) and A3 (manufacturing process). This can be achieved by either of the following:

Conduct CFP study report in accordance with ISO 14067:2018 and CIBSE TM 65 or equivalent

OR

Provide the product's CFP value from a product level EPD issued in accordance with ISO 14067:2018, ISO 21930:2017, GB/T 24067-2024 or BS EN 15804:2012+A2:2019.

Verification

CFP quantification report endorsed by a third-party critical review or Environmental Product Declaration fulfilling the above requirements

4.3 RESOURCE

4.3.1 Circularity

The Applicant can achieve maximum 15 Bonus Points under this section.

4.3.1.1 Recyclability – Non-core Criteria

Requirements

5 Bonus Points for demonstrating that the manufacturer has developed a recycling plan for the product and declared options for reuse, recycling, recovery and disposal. The plan shall include the following and made available to public.

- Designate all homogeneous materials in the product as being intended for technical and/or biological cycles and define the intended cycling pathway(s) for each material.
- Identify potential partners for product reuse, recycling, recovery in accordance with the intended cycling pathway(s).
- For products and materials intended for municipal recycling, the product and/or material must be compatible for municipal cycling systems (e.g., painted plastics and plastic laminated paper are not currently compatible for municipal recycling).
- Instructions for how to cycle the product shall be made publicly available.

Verification

Documentation of recycling plan, including, but not limited to product catalogue, MSDS and written declaration

4.3.1.2 Packaging Requirement – Non-core Criteria

Requirements

5 Bonus Points for minimizing the wastage from all primary packaging materials. The packaging materials shall achieve either of the followings.

The packaging materials shall not contain halogenated plastics

OR

The packaging materials shall be comprised of 100% recycled materials, readily recyclable materials or decomposable materials

OR

The packaging shall not be impregnated, labelled, coated or otherwise treated in a manner, which would prevent or significantly limit recycling.

The packaging requirements are relevant to all primary packaging materials, i.e. those being used to envelop the product and hold it. The primary packaging materials are

usually in direct contact with the contents and shall be in the minimal amount of distribution and /or use as they may eventually be disposed by the consumers.

Verification

Documentation describing the packaging materials used as well as their chemical composition (if any and where applicable), treatment process and recyclability.

4.3.1.3 Design For Disassembly – Non-core Criteria

Requirements

5 Bonus Points for AHUs incorporated design for disassembly features, specifically meeting the following requirements:

- The blowers and motors shall be demountable from enclosure for cleaning, repair, replacement or maintenance purpose.
- Fan impeller scroll casing shall be removable for fan blades cleaning.

Verification

Documentation including but not limited to product label, product catalogue, and written declaration.

4.3.2 Waste Management

The Applicant can achieve maximum 5 Bonus Points under this section.

4.3.2.1 Waste Management Plan – Non-core Criteria

Requirements

5 Bonus Points for implementing effective waste management plan detailing the policies, procedures and/or a waste management program covering manufacturing operations. The waste management plan should include but not limited to the following information:

- Initiatives taken to reduce waste generation and improve recovery/recycling of waste
- Initiatives implemented for recovery of post-consumer and/or pre-consumer waste that can be re-introduced into the manufacturing process and
- Other environmental benefits or constraints associated with waste minimisation objectives and processes.

Verification

Documentation of waste management programme.

4.3.3 Water Management

The Applicant can achieve maximum 10 Bonus Points under this section.

The Applicants can select one of the options below and comply with any or all the requirements under that option to achieve associated points. Each option is eligible for a maximum 10 Bonus Points.

Option A:

4.3.3.1 Water Consumption Reporting – Non-core Criteria

Requirements

5 Bonus Points for reporting both potable and non-potable water usage in the production process of the past year.

Verification

Water consumption report, support by water usage data acquired from water meter, water sub-meter, water bill or other equivalent documents.

4.3.3.2 Water Recycling Program – Non-core Criteria

Requirements

5 Bonus Points for developing and implementing water recycling program during the manufacturing process.

Verification

Documentation demonstrating the implementation of water recycling program, support by drawings, water usage data acquired from water sub-meter or other equivalent documents.

Option B:

4.3.3.3 Water Management System – Non-core Criteria

Requirements

10 Bonus Points for possessing valid certificate under ISO 14046: Environmental management – Water footprint – Principles, requirements and guidelines.

ISO 14046 is a framework for assessing the water footprint of products, processes, and organizations. It provides principles, requirements, and guidelines for conducting and reporting water footprint assessments. It helps organizations evaluate and improve their water management practices.

Verification

A valid ISO 14046 certificate issued by accredited certification body.

4.3.4 Energy Management

The Applicant can achieve maximum 10 Bonus Points under this section.

The Applicants can select one of the options below and comply with any or all the requirements under that option to achieve associated points.

Option A:

4.3.4.1 Energy Management Plan – Non-core Criteria

Requirements

5 Bonus Points for implementing effective energy management policies and procedures and/or an energy management programme, including but not limited to the following items:

- Energy efficiency initiatives: Manufacturer should undertake specific initiatives to reduce energy use and improve energy efficiency throughout their operations. This could include upgrading to more efficient equipment, optimizing production processes, or implementing energy-saving technologies
- Supplier requirements: Manufacturers should extend their energy management efforts to their supply chain by establishing requirements or initiatives for suppliers and contract manufacturers to improve their energy performance where possible

Verification

Documentation of energy management plan detailing the above, supported by organizational policy or other equivalent documents.

Option B:

4.3.4.2 Energy Management System – Non-core Criteria

Requirements

10 Bonus Points for possessing valid certificates under ISO 50001: Energy management systems — Requirements with guidance for use.

ISO 50001 provides a framework for organizations to establish, implement, maintain, and improve an Energy Management System. The goal is to help organizations improve their energy performance, increase energy efficiency, and reduce energy costs and greenhouse gas emissions. By achieving ISO 50001 certification, manufacturers can demonstrate their commitment to energy efficiency and sustainability

Verification

A valid ISO 50001 certificate issued by accredited certification body.

4.4 ENVIRONMENT

4.4.1 Environmental Management

The Applicant can achieve maximum 5 Bonus Points under this section.

4.4.1.1 Environmental Management System – Non-core Criteria

Requirements

5 Bonus Points for possessing valid certificate under ISO 14001: Environmental management systems — Requirements with guidance for use or EU Eco-Management and Audit Scheme (EMAS).

The target of the environmental management system shall be set to reduce the environmental impacts during the manufacturing process which include but not limited to the reduction of hazardous substance emissions, energy consumption, CO_2 emissions, secondary environmental load, waste management, water management, etc.

ISO 14001 is the international standard which provides an outline of how to meet the environmental policy and objectives for the business of the applicant.

Eco-Management and Audit Scheme (EMAS) is an environmental management tool which enables organisations to assess, manage and continuously improve their environmental performance.

Verification

A valid ISO 14001 or EMAS certificate issued by accredited certification body.

4.4.2 Regional Product

The Applicant can achieve maximum 5 Bonus Points under this section.

4.4.2.1 Regionally Manufactured Equipment – Non-core Criteria

Requirements

5 Bonus Points for products that are manufactured within 800km radius of HKSAR by road transportation; within a 1,600km radius by rail transportation; or within a 4,000km radius by sea transportation. The distance is measured by the direct distance, not by actual travel distance.

Verification

Documents demonstrating the location of the manufacturer and a map showing the distance between the manufacturer and HKSAR.

4.4.3 Human Toxicity and Ecosystem Impact

The Applicant is required to achieve 10 Basic Points under this section. Additionally, the Applicant can achieve maximum 5 Bonus Points under this section.

4.4.3.1 Hazardous Substances – Non-core Criteria

Requirements

5 Bonus Points shall be awarded if no paint is used on the products

OR

Fulfil both requirements as listed below for the paint used on the products:

- Limit the concentration of Lead, Cadmium, Chromium (VI), Mercury or their compounds in paint below 0.01% by weight.
- Limit the concentration of VOC content in paint below 250g/L.

Verification

Laboratory test report(s) or self-declaration letter.

Test report(s) shall be compiled according to the National and International test methods including but not limited to IEC 62321.

4.4.3.2 Noise Level – Core Criteria

Requirements

10 Basic Points shall be awarded for products not exceeding the maximum noise airborne sound pressure levels as stated in GB/T 14294-2008 (or latest version); other related testing methods are also acceptable with justification provided by the applicant.

Table 2: Maximum Sound Pressure Noise Level dB(A) -Airborne

Rated air flow rate (m^3/hr)	**Total static pressure/Pa**				
	350	**500**	**750**	**1,000**	**1,500**
2,000-3,000	60	63	66	69	72
5,000	62	65	68	71	74
6,000	63	66	69	72	75
10,000	65	68	71	74	77
12,000	66	69	72	75	78
20,000	68	71	74	77	80
25,000	69	72	75	78	81
30,000	70	73	76	79	82
50,000	72	75	78	81	84
80,000	74	77	80	83	86

Rated air flow rate (m^3/hr)	Total static pressure/Pa				
	350	500	750	1,000	1,500
100,000	75	78	81	84	87
160,000	77	80	83	86	89
200,000	78	81	84	87	90

Note: The value between air flow rate and total static pressure specified in the table may be determined according to interpolation method.

GB/T 14294-2008 specifies the terms and definition, classification and marking, materials, requirements, test methods, inspection rules, marking, packing, transporting and storing, product sample and the basic contents of product specification of air handling units.

Verification

Documentation including but not limited to product catalogue and test report(s).

4.5 PERFORMANCE

4.5.1 Efficiency Metrics

The Applicant is required to achieve 30 Basic Points under this section. Additionally, the Applicant can achieve maximum 10 Bonus Points under this section.

4.5.1.1 Fan Efficiency – Core Criteria

Requirements

- The fan operating efficiency at all intended operating points shall not be less than 15 percentage point below the fan peak total efficiency as required in AMCA 205-12.
- Products shall use forward or backward curved fan with airfoil blades.

Points are awarded for demonstrating compliance of Fan Efficiency Grade (FEG) as listed in Table 3.

Table 3: Fan Efficiency Grades

Points	Efficiency Grade
15 Basic	>FEG67
15 Basic + 5 Bonus	>FEG80

AMCA 205 defines the energy efficiency classification for fans.

Verification

Documentation including but not limited to product catalogue and test report(s).

4.5.1.2 Motor Efficiency – Core Criteria

Requirements

Motors used for the fan in the AHU shall satisfy the efficiency classification in IEC 60034-30-1. Points are awarded for demonstrating compliance of motor efficiency class as per Table 4 below.

Table 4: Motor efficiency class

Points	Efficiency Class
15 Basic	IE3
15 Basic + 5 Bonus	IE4

IEC 60034-30 specifies energy-efficiency classes for single-speed, continuous duty, three-phase, cage-induction motors.

Verification

Documentation including but not limited to product catalogue and test report(s).

4.5.2 System Performance and Reliability

The Applicant is required to achieve 5 Basic Points under this section. Additionally, the Applicant can achieve maximum 10 Bonus Points under this section.

4.5.2.1 Casing Performance – Core Criteria

Requirements

5 Basic Points are awarded if all products meet the 5 basic requirements of casing performance as listed in Table 5.

5 Bonus Points are awarded if 3 out of 5 bonus criteria are met.

The requirements are in accordance with BS Standard including but not limited to the BS EN 1886:2007 (or latest version). Other related standards are also acceptable with justification provided by the applicant.

Table 5: Casing Performance

Points	Criteria	Category
Basic	Class D2: Maximum relative deflection: 10mm/m	Mechanical Strength
	Maximum leakage rate (f_{400}): 0.44 l/s/m^2	Air Leakage Class L2
	Maximum leakage rate (f_{700}): 0.63 l/s/m^2	
	Class T2: $0.5 < U \leq 1.0$	Thermal Transmittance U W/(m^2·K)
	Class TB2: $0.60 < k_b \leq 0.75$	Thermal bridging factor k_b
	Minimum sound insertion loss through panels at 1K Hz: 10dB	Acoustic insulation
Bonus	Class D1: Maximum relative deflection: 4 mm/m	Mechanical Strength
	Maximum leakage rate (f_{400}): 0.15 l/s/m^2	Air Leakage Class L1
	Maximum leakage rate (f_{700}): 0.22 l/s/m^2	
	Class T1: $U \leq 0.5$	Thermal Transmittance U W/(m^2·K)
	Class TB1: $0.75 < k_b < 1.00$	Thermal bridging factor k_b
	Class F9: Maximum filter bypass leakage rate 0.5%	Filter bypass leakage

BS EN 1886:2007 specifies the mechanical performance of an air handling unit as a whole to be utilized by all involved in ventilation and air conditioning manufacturing, design, installation and maintenance.

Verification

Documentation including but not limited to product catalogue and test report(s).

4.5.2.2 Heat Recovery – Non-core Criteria

Requirements

5 Bonus Points are awarded if all heat exchangers are fitted with seals to minimise air leakage. The heat recovery classes at balanced mass flow conditions (1:1) shall fulfil the following requirements of $\eta_{e\ 1:1}$ min [%] ≥ 71 with η_e values based on calculation according to DIN EN 13053 or equivalent.

BS EN 13053:2011 specifies requirements and testing for ratings and performance of air handling units as a whole. It also specifies requirements, recommendations, classification, and testing of specific components and sections of air handling units.

Verification

Documentation including but not limited to product catalogue and test report(s).

4.6 INNOSMART

4.6.1 Innovations & Additions – Non-core Criteria

The Applicant can achieve maximum 5 Bonus Points under this section.

Requirements

5 Bonus Points are awarded for achieving significant, measurable environmental performance using new practices, technology and strategy not addressed in this Standard.

OR

Incorporating various smart technologies to improve efficiency, reduce energy consumption, and optimize performance as, exemplified by the following examples:

- Multi-trade Integrated MEP (MiMEP)
- Smart Controls and Automation
- IoT Integration and Data Analytics
- Energy-Efficient Designs

Verification

Report with a maximum length of 1,000 words, outline the objectives, solution and evaluation of the performance achieved by proposed Smart and Innovative Technologies.

AND

Include attachments that provide evidence of implementation, along with relevant technical specification that support the claims made in the report.

5. SCORING

The points for meeting each criterion stated in this Standard are summarized below.

Table 6: Points to be awarded under the assessment criteria of this Standard

Label	Evaluation Criteria		Points		Related BEAM Plus Credits
			Basic	+Bonus	
	Product Information [CORE]		5	-	
Carbon	CFP quantification/ EPD report		-	+5	MW 10
Resource	Circularity	Recyclability	-	+5	
		Packaging Requirement	-	+5	
		Design for Disassembly	-	+5	
	Waste Management	Waste Management Plan	-	+5	
	Water Management	Water Consumption Reporting	-	+5/+10	
		Water Recycling Program			
		Water Management System			
	Energy Management	Energy Management Plan	-	+5/+10	
		Energy Management System			
Environment	Environmental Management	Environmental Management System	-	+5	
	Regional Product	Regionally Manufactured Equipment	-	+5	MW 8
	Human Toxicity and Ecosystem Impact	Hazardous Substances	-	+5	
		Noise Level [CORE]	10	-	SS 5
Performance	Efficiency Metrics	Fan Efficiency [CORE]	15	+5	EU 2, 3
		Motor Efficiency [CORE]	15	+5	EU 2, 3
	System Performance and Reliability	Casing Performance [CORE]	5	+5	
		Heat Recovery	-	+5	EU 2, 3
InnoSmart	Innovations & Additions		-	+5	IA
		Total:	**50**	**+85**	

Related BEAM Plus Credits refer to these relevant credits under BEAM Plus New Buildings Version 2.0, as listed below.

- MW 8: Regional Materials
- MW 10: Life Cycle Assessment
- SS 5: Noise Control for Building Equipment
- EU 2: Reduction of CO2 Emissions
- EU 3: Peak Electricity Demand Reduction
- MW 9: Use of Green Products
- Innovations & Additions