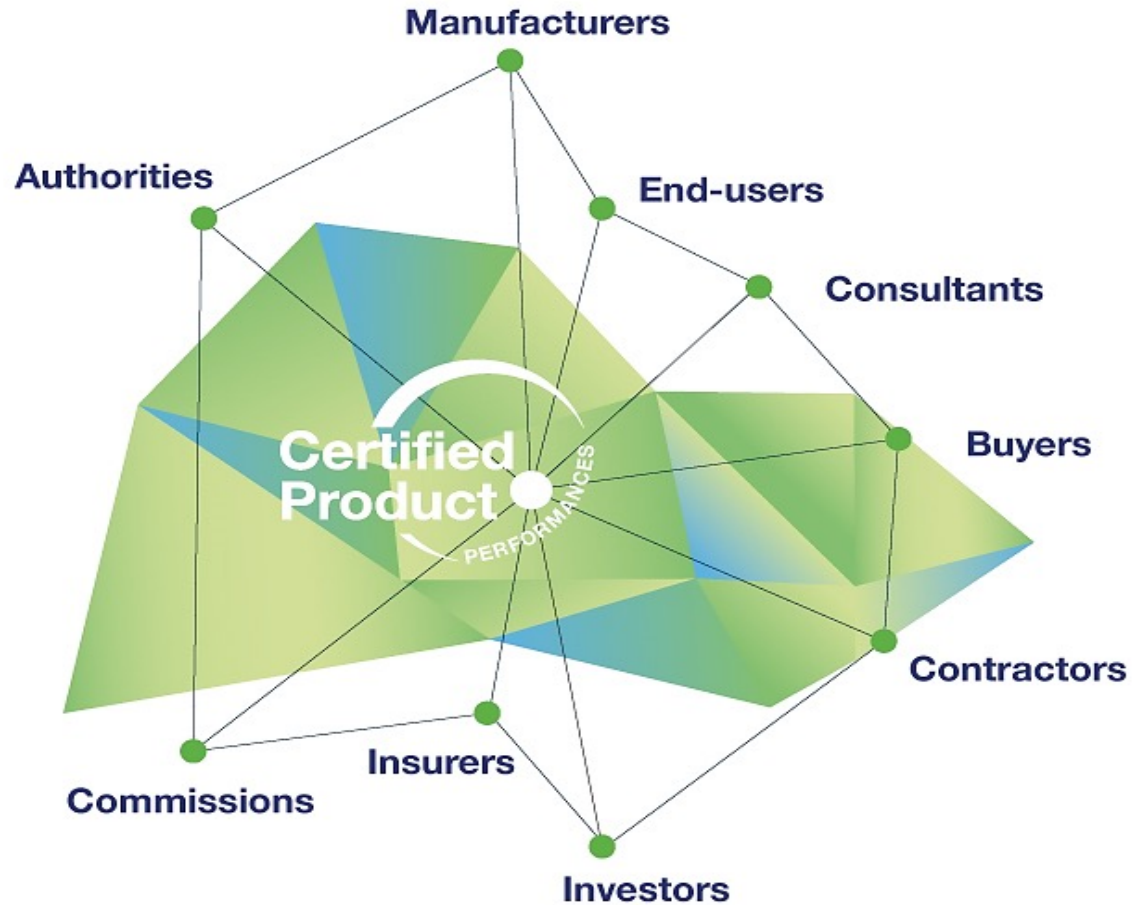


# Eurovent Certita Certification



Third party certification,  
energy labelling, and  
market surveillance

Eurovent Middle East 5 Years  
12 September 2022  
Dubai

# Content

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1. Eurovent Certita Certification- Facts & Figures
2. Third Party Certification- Importance of Independent Assessment
3. AHU certification Programme - Hot & Humid Climates
4. VRF and Chillers for high ambient
5. How does it Work- User Guidance



# Eurovent Certita Certification

Facts and figures

[www.eurovent-certification.com](http://www.eurovent-certification.com)



# Eurovent Certita Certification



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**Third party certification body**

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**ISO 17065:2012, Scheme 5 accredited**

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**Almost 50 certification schemes**

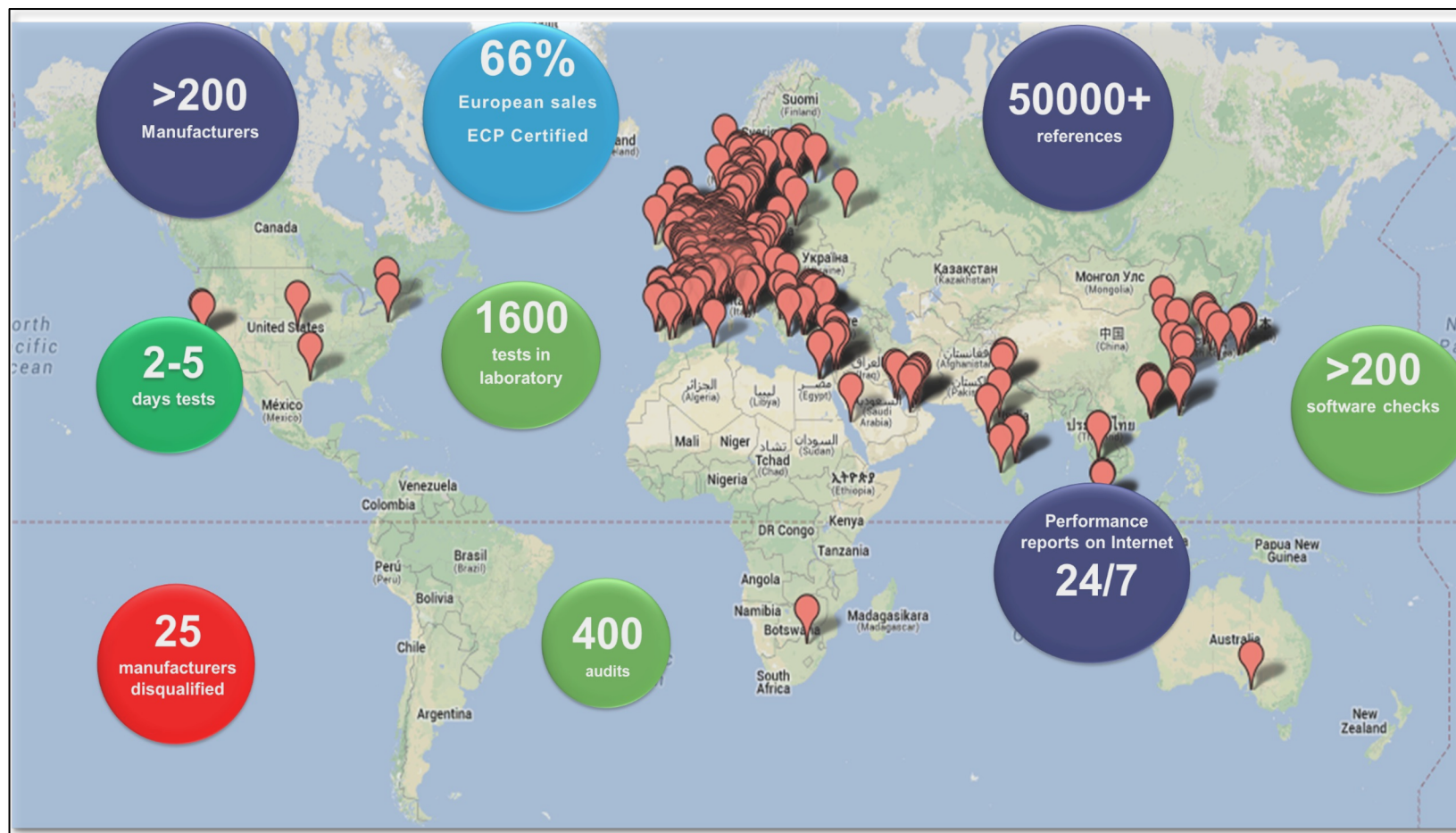
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**A team of 60 permanent people dedicated to certification**

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**10 languages spoken**

# Eurovent Certita Certification



# Certified Product Range



## VENTILATION & INDOOR AIR QUALITY



Air Handling Units  
(+ hygienic option)



**RECENT**  
Ventilation ducts



Air Filters

**RECENT**

Residential Air Filters



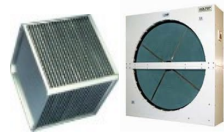
**RECENT**

Fans



**RECENT**

Air Cleaners



Air to air heat exchangers



Residential AHU

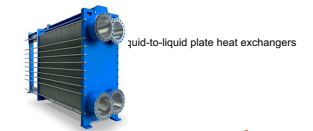


## INDOOR CLIMATE



Variable refrigerant flow

**RECENT**



liquid-to-liquid plate heat exchangers



Chilled beams



Fan coils



**RECENT**

Heat Interface Units



Rooftops



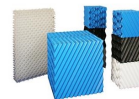
Air conditioners



## PROCESS COOLING & FOOD COLD CHAIN



Refrigerated Display Cabinets



Drift eliminators



Chillers & Heat-Pumps



**NEW**

Condensing Units

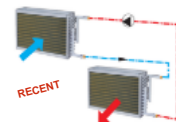


**RECENT**

Evaporative cooling



Heating & Cooling Coils



**RECENT**

Heat Recovery Systems with intermediate heat transfer medium



Cooling towers



Heat Exchangers for refrigeration

# How does it work?

**Comparison** between the measured values and the declared values

Production sites **audits**

**ANNUALLY**

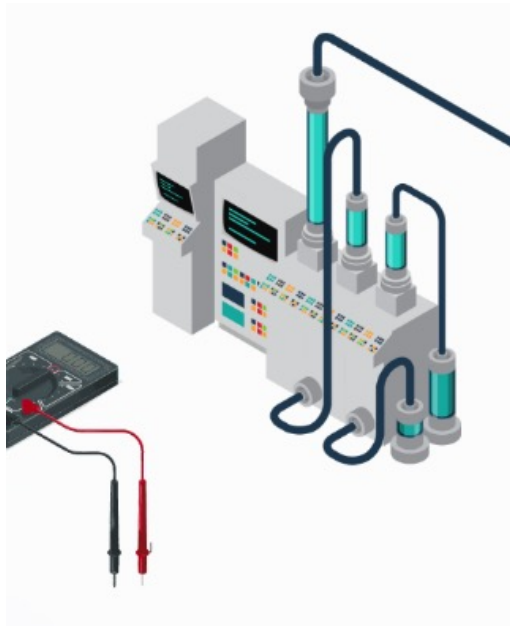
**Corrective actions** progress assessment (if any)

Product **performance testing** in an independent laboratory

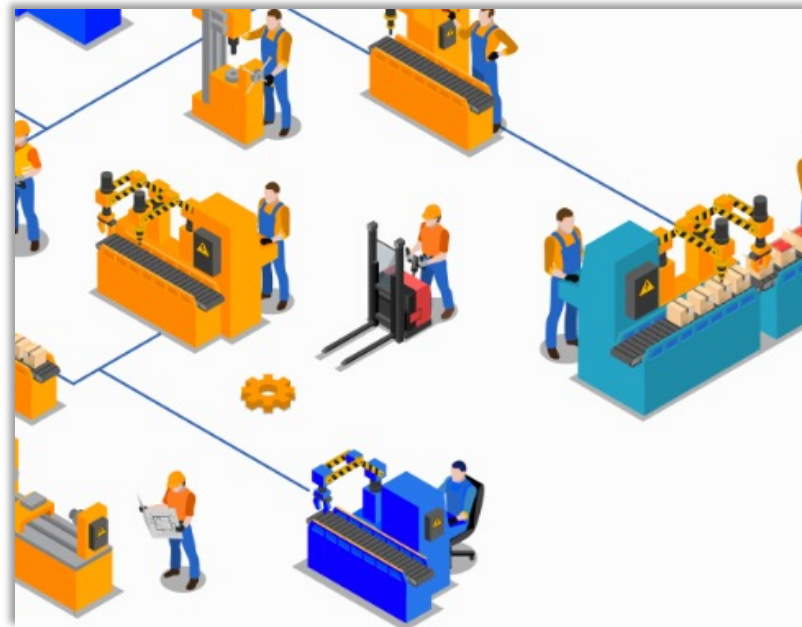
**Compliance** with general ECP rules

+ ***Check of selection tool*** whenever applicable

# How does it work?



1. Laboratory Test



2. Factory Audit



3. Selection Software Check





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# Third Party Certification

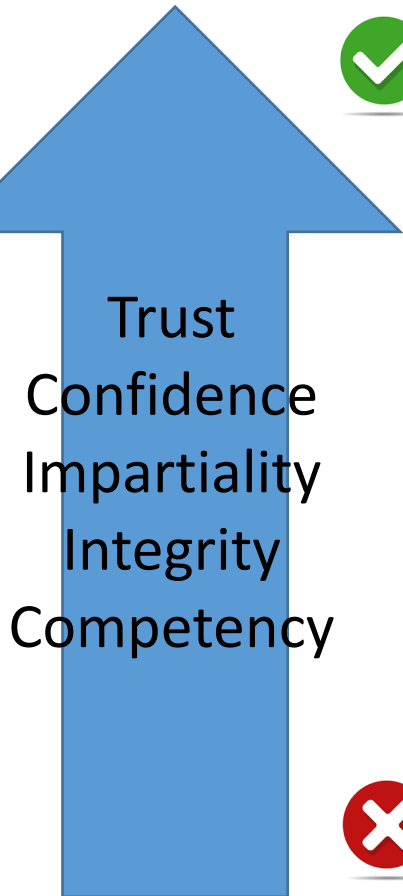
The importance of independent assessment

# Why third-party certification?

## Verification, Trust, Comparability



# Why third-party certification?



• **Certification by Eurovent Certita Certification:** more than 25 years of experience in the HVAC&R, unique protocols including audits and selection tools checking, often well in advance compared to international standards.



• **Certification by Independent Bodies ISO 17065 Accredited:** Competence, Robustness, Independence verified by accreditation bodies linked to IAF (International Accreditation Forum)



• **Sample test by independent Labs** (++) if ISO 17025 Accredited labs): strong risk of Sampling manipulation (Golden product Syndrome!)



• **Factory Acceptance Test, possibly backed-up by third party protocol:** lack of independency from manufacturers facilities, limited trust for mass productions



• **Self declaration:** the worst confidence level, the minimum of protection is ensured by Market Surveillance Authorities...!

# Benefits of third party certification

Trust



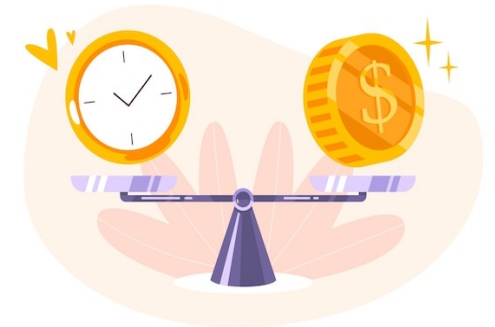
Comparability



Accuracy



Savings





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# AHU certification programme

Hot and humid climates

# A holistic approach of AHU efficiency in hot and humid climates

Classes are defined by 5 parameters:

1. **Air velocity** in the unit
2. Heat recovery system **dry efficiency**\*
3. Heat recovery system **wet efficiency**\*
4. Heat recovery system **pressure drop**\*
5. **Fan Efficiency Grade**

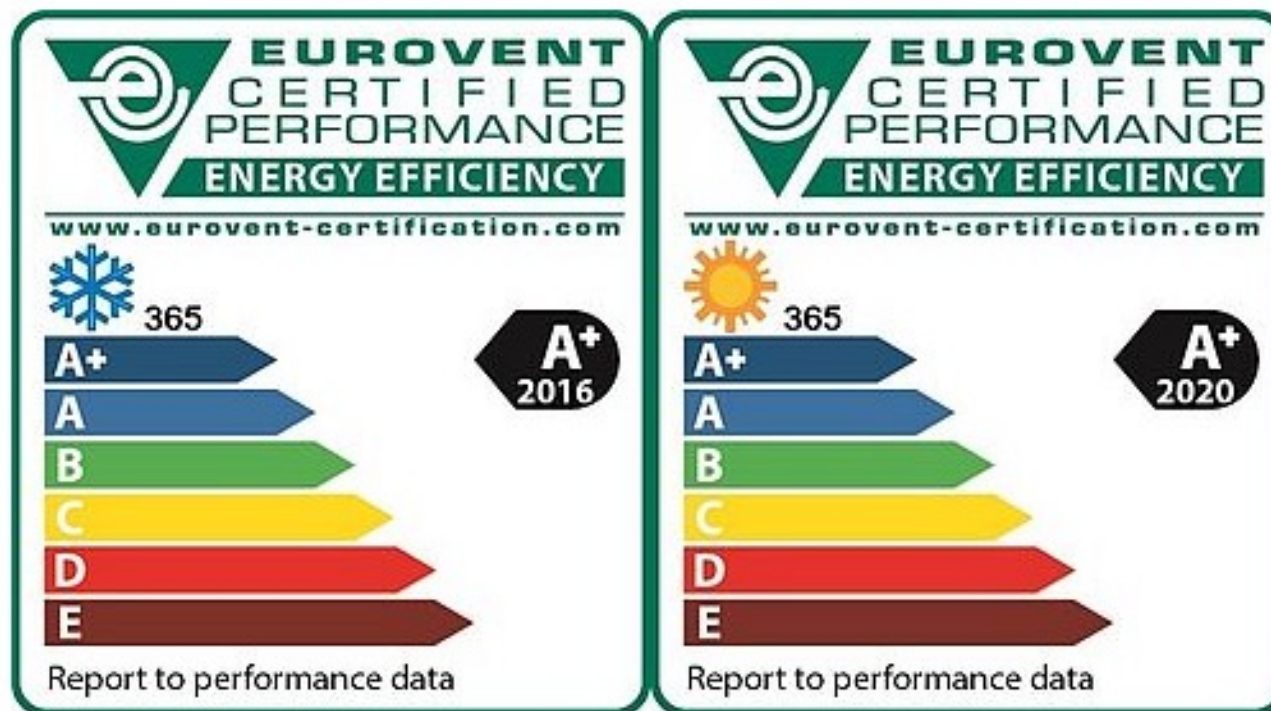
\* Only for units for full or partial outdoor air at design conditions acc. to subgroup 1

The following reference is applicable for the calculation of the correction factors for summer application:

CLASS	All Units	Units for full or partial outdoor air at design summer: winter dry bulb temperature $\geq -3^{\circ}\text{C}$ AND dry bulb temperature $\geq 30^{\circ}\text{C}$ OR winter dry bulb temperature $\geq -3^{\circ}\text{C}$ AND dew-point temperature $\geq 17^{\circ}\text{C}$ OR dry bulb temperature $\geq 30^{\circ}\text{C}$ AND dew-point temperature $\geq 17^{\circ}\text{C}$				Fan Efficiency Grade  NG <sub>ref-class</sub> [-]
	Velocity	Heat recovery system				
	$v_{\text{class}}$ [m/s]	$\eta_{\text{class-T}}$ [%]	$\Delta p_{\text{class-T}}$ [Pa]	$\eta_{\text{class-H}}$ [%]	$\Delta p_{\text{class-H}}$ [Pa]	
<b>A+ / A+C</b>	1.4	83	167	81	222	64
<b>A / A<sub>C</sub></b>	1.6	78	160	73	213	62
<b>B / B<sub>C</sub></b>	1.8	73	155	65	207	60
<b>C / C<sub>C</sub></b>	2.0	68	151	58	202	57
<b>D / D<sub>C</sub></b>	2.2	63	147	50	197	52
<b>E / E<sub>C</sub></b>	No calculation required				No requirement	

Table 8: Table for energy efficiency calculations (summer application)

# Two different energy efficiency labels

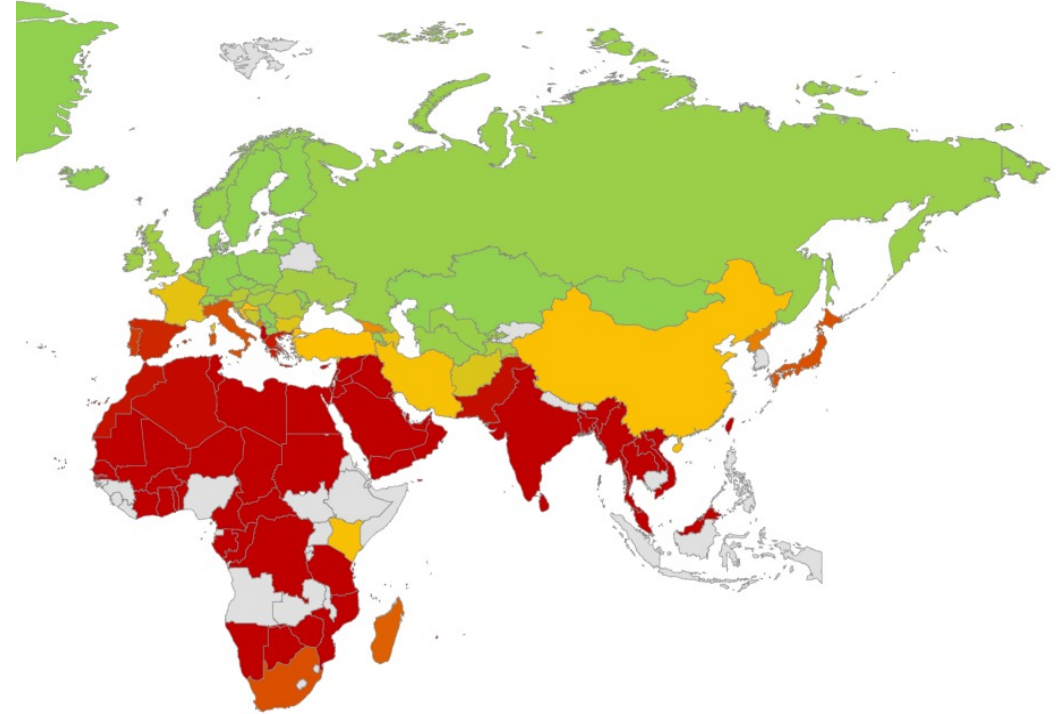


Eurovent Winter Label

Eurovent Summer Label

# Regional application

- Countries where the use of the summer label is mandatory are marked in red (subgroup 1)
- Grey areas no data available or processed
- Design temperature is defined by location (based on ASHRAE)







# VRF and Chillers for High Ambient

# VRF programme for High Ambient

- Cooling capacity at T1, T3 and T4 (High Ambient)
- Combination EER In cooling at T1, T3 and T4 (High Ambient)
- Operability at 52°C for 2 hours (High Ambient)
- 50 and 60 Hz units

		Outdoor heat exchanger		Indoor heat exchanger	
		Inlet DB temp	Inlet WB temp	Inlet DB temp	Inlet WB temp
		°C	°C	°C	°C
SASO 2874 / EN 14511	T1	35	24	27	19
SASO 2874 / EN 14511	T3	46	24	29	19
T4 for Kuwait		48	24	26,6	19,4

# Chiller programme for High Ambient

- Chiller option for High Ambient:
  - Cooling capacity and EER at T1 and T3 (High Ambient)
  - Operability at 52°C for 2 hours (High Ambient)
  - 50 and 60 Hz units
- Chiller option for India:

Part load	Water cooled (Outdoor – Indoor Cond.)	Air cooled (Outdoor – Indoor Cond.)
100%	30 / 35 °C – 12 / 7 °C	39 °C – 12 / 7 °C
75%	26 °C – a / 7 °C	32 °C – a / 7 °C
50%	23 °C – a / 7 °C	26 °C – a / 7 °C
25%	20 °C – a / 7 °C	20 °C – a / 7 °C

a – when flow rate equal to a 5 °C ΔT at 100% rating point for water-cooled units, and when airflow equal to the full load rating



# How does it work?

User guidance

# How to use it?

## How ESCO's, Authorities, Engineers & Developers can use it:

Certified product directory at [www.eurovent-certification.com](http://www.eurovent-certification.com)

Search by:

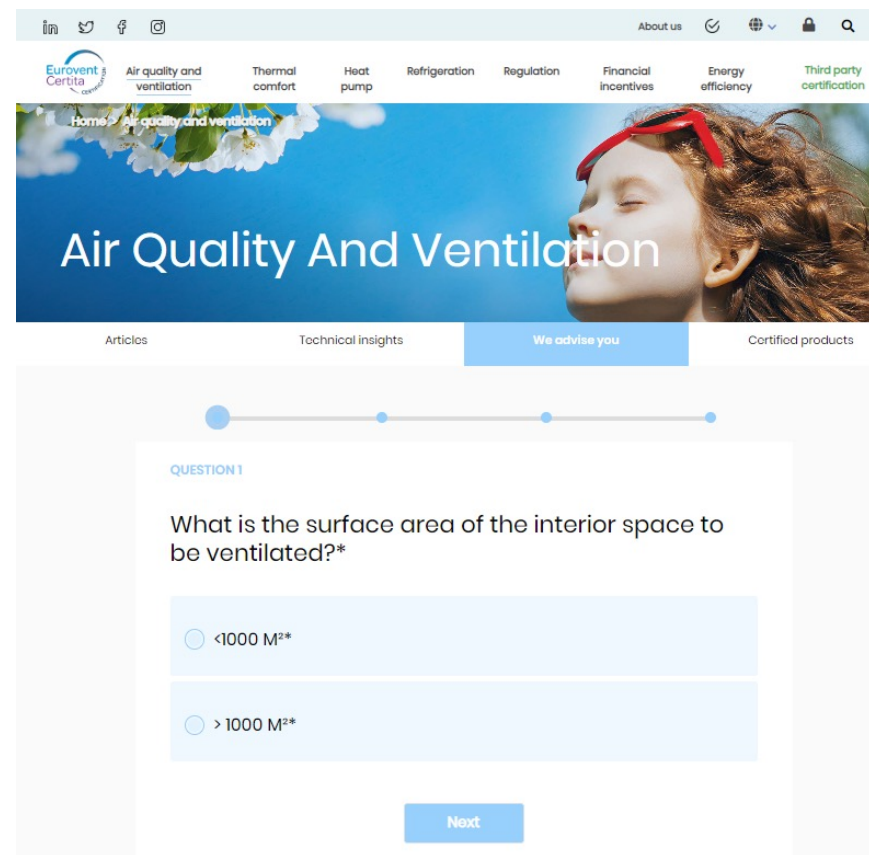
- Brand
- Range
- Model name
- Certificate number
- Specific performances with the advanced search criteria

The screenshot shows the 'Certified product directory' search page on the Eurovent Certita website. The page features a navigation bar with categories: Air quality and ventilation, Thermal comfort, Heat pump, Refrigeration, Regulation, Financial incentives, Energy efficiency, and Third party certification. Below the navigation bar, there is a search bar with the text 'Please select one product family and one product type.' and buttons for 'New search' and 'Let us guide you'. The search results are displayed in a table with columns for 'Product type', 'Brand', 'Range', 'Model name / Certificato N°', and 'Advanced search criteria'. The 'Product type' column is currently selected, showing a search input field and a list of 'Air handling units' with radio button options: 'Model box', 'Real unit, reversible, without heat recovery', 'Real unit, heating only, without heat recovery', and 'Real unit, reversible, with heat recovery'. At the bottom of the search results, there are buttons for 'Clear all filters' and 'Apply (0922)'. The page title is 'Home > Certified product directory'.

# How to use it?

Three **configurators** are available for users to find the certified product families that will fit their needs:

- [Air Quality and Ventilation](#)
- [Thermal comfort](#)
- [Heat Pump](#)



The screenshot shows the website interface for the 'Air Quality and Ventilation' configurator. At the top, there is a navigation bar with social media icons (LinkedIn, Twitter, Facebook, Instagram) on the left and 'About us', a refresh icon, a globe icon, a lock icon, and a search icon on the right. Below this is a horizontal menu with categories: 'Air quality and ventilation' (selected), 'Thermal comfort', 'Heat pump', 'Refrigeration', 'Regulation', 'Financial incentives', 'Energy efficiency', and 'Third party certification'. The main header features a large image of a child with red swim goggles on their head, looking up at a blue sky with white clouds. The text 'Air Quality And Ventilation' is overlaid on the image. Below the header is a secondary navigation bar with four tabs: 'Articles', 'Technical insights', 'We advise you' (selected), and 'Certified products'. The main content area displays a progress indicator with four steps, where the first step is active. Below this is 'QUESTION 1' with the text 'What is the surface area of the interior space to be ventilated?'. There are two radio button options: '<1000 M²\*' and '> 1000 M²\*'. A 'Next' button is located at the bottom right of the question area.

# How to use it?

In case of misleading communication, our **Trademark incident list** clarifies the status of the corresponding manufacturers and/or distributors.

## Trademarks incident list

You will find on this page a non-exhaustive list of manufacturers who do not present products certified by Eurovent Certita Certification.

Criteria for entering the list:

- No contract signed with Eurovent Certita Certification in the last 12 months.
- Existence of document where company misuses the Eurovent Certified Performance logo.
- Procedure proposing amicable resolution within 15 days has not succeeded.
- Repetition of misuse (in this case, no notification of 15 days).

Criteria for leaving the list:

- Removal of any mention to the "Eurovent Certified Performance" mark and written commitment that it is effective at letter date.

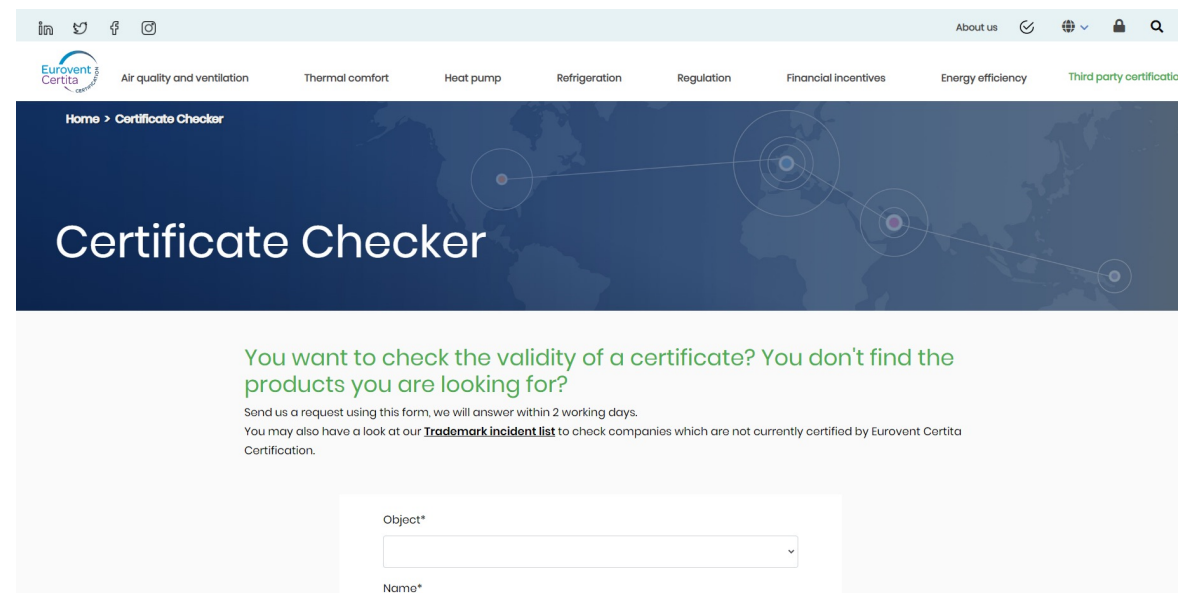
Non-exhaustive list of manufacturers who do not present products certified by Eurovent Certita Certification

Company	Product Family	Trademark
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# How to use it?

## In case of any doubt, use our Certificate Checker:

1. fill-in the form
2. Our team will send you a reply within 2 days



The screenshot shows the 'Certificate Checker' page on the Eurovent Certita website. The page features a dark blue header with the Eurovent Certita logo and navigation links for 'Air quality and ventilation', 'Thermal comfort', 'Heat pump', 'Refrigeration', 'Regulation', 'Financial incentives', 'Energy efficiency', and 'Third party certification'. Below the header, the main content area has a dark blue background with a world map and the text 'Certificate Checker'. A green heading asks, 'You want to check the validity of a certificate? You don't find the products you are looking for?'. Below this, a paragraph states: 'Send us a request using this form, we will answer within 2 working days. You may also have a look at our [Trademark incident list](#) to check companies which are not currently certified by Eurovent Certita Certification.' At the bottom, there is a form with two fields: 'Object\*' and 'Name\*'. The 'Object\*' field is a dropdown menu, and the 'Name\*' field is a text input box.