

Association for Indoor Climate, Process Cooling, and Food Cold Chain Technologies



Building Bridges





Meeting of the Eurovent Product Group 'Energy Recovery Components' (PG-ERC)

Tuesday, 25 October 2022, 13:45-16:45, Palmiye

Tuesday, 25 October 2022 Meeting of PG-ERC 2





1. Introduction, EUROVENTSUMMIT Open Session

Tuesday, 25 October 2022 Meeting of PG-ERC





What can you expect today?



Tuesday, 25 October 2022



WHEN?	WHAT?	WHERE?	
11:00-11:30h 15:30-16:00h	Coffee Break	Foyer (Floor 1)	
12:45-13:45h	Lunch Break	Meeting room Ladin + Foyer (Floor 1)	
13:45-17:30h	ISKID/TTMD Seminar: New technologies and trends in HVACR – Part 1 (in Turkish and English) (Powered by Eurovent Certified Performance)	Side Ballroom (Floor 1)	
18:30-20:30h	Summit Opening Ceremony by the Eurovent President (Powered by Systemair)	Hotel Garden Terrace	
20:30-22:00h	Policy Panel: Vision for the future of product efficiency (<u>Powered by CEIS</u>)	Hotel Garden Terrace	



Tuesday, 25 October 2022



ISKID/TTMD Seminar: New technologies and trends in HVACR – Part 1 (Powered by Eurovent Certified Performance)

- Time: 13:45-17:30h
- Location: Side ballroom (floor +1)
- In Turkish and English, with simultaneous translation
- Aimed at architects, consultants, designers, installers, manufacturers and policy makers of the HVACR industry
- This Turkish symposium will discuss hot topics and latest trends of the industry



Tuesday, 25 October 2022



Summit Opening Ceremony by the Eurovent President (Powered by Systemair)

- Time: Starts at 18:30h at the Akra Hotel Garden Terrace
- A warm welcome from the Eurovent President Raul Corredera Haener (Systemair).
- Enjoy traditional Turkish barbecue while learning more about our activities and recent developments in the industry and the Eurovent world, and listening to welcome remarks by several high-ranking invited guests.



Tuesday, 25 October 2022



Policy Panel: Vision for the future of product efficiency (Powered by CEIS)

- Time: 20:30h, after Opening Ceremony at the Akra Hotel Garden Terrace
- The panel will discuss the future of global product efficiency policies, such as MEPs, energy labels, and more.
- Features Turkish Ministry of Industry and Technology, VHK, UNEP, CEIS, ECC and Eurovent.





Thank you to our sponsors and partners

Who made the 2022 Eurovent Summit possible?



Co-organiser





 ISKID is the Turkish Air Conditioning and Refrigeration Manufacturers' Association. ISKID was established in 1992 with the contributions of prominent companies in the air conditioning and refrigeration sector, to conduct work towards making the HVACR Industry development healthier and faster. Over 100 member companies are gathering under ISKID's roof to conduct activities for the development of the sector and to stay in high-quality standards. As this edition of the Eurovent Summit takes place in Turkey, the association has become co-organiser of the event, as well as organiser of a Turkish-English seminar programme.



BridgeBuilding Partner





- <u>UL Solutions</u> is a global leader in applied safety science.
- UL Solutions transforms safety, security and sustainability challenges into opportunities for customers in more than 100 countries.



BridgeBuilding Supporter





 Baltimore Aircoil Company develops, manufactures and distributes evaporative cooling products, offering innovative and sustainable cooling solutions for saving water and energy in air conditioning, refrigeration and industrial process applications.



BridgeBuilding Supporter





 CEIS is a Spanish testing, innovation and service centre offering well-recognised testing programmes for air conditioning and heat pump appliances. This year, CEIS has become a proud supporter of the Eurovent Summit for the third time in a row.

Tuesday, 25 October 2022 Meeting of PG-ERC



BridgeBuilding Supporter



J2INNOWTIONS

A Siemens Company

- J2 Innovations, a subsidiary of Siemens, is a provider of control and management software for HVAC and refrigeration equipment.
- J2 Innovations created FIN Framework; the next generation software platform for building automation and IoT applications in buildings.



BridgeBuilding Contributor





 ABB is a leading manufacturer of drives, motors and controls for HVACR applications with a global footprint, supporting the industry across the world with products and services.



BridgeBuilding Contributor





 Turkish HVACR Exporters Association (ISIB) is the only coordinator and exporter association in Turkish HVACR sector. Established in 2012, ISIB works towards bringing together all the exporter companies active in the Turkish HVACR sector under one roof and increasing the export potential of the sector.







Boreas Technology engages in manufacturing and sales of DC Master Adia Mechanic Cooler and CRAC/CRAH models which are specially designed for data centres as well DC Pro units, air conditioning units distinguished for their authentic design, and central air- conditioning equipment. With its know-how of more than 20 years, it offers state-of-the-art solutions for critical buildings such as hospitals, malls and hotels as well as industrial buildings and data centres in various countries in the world. As the choice of leading global brands, the company is dedicated to offering technology solutions for a sustainable world with high efficiency, customised products thanks to its R&D investments and engineering know-how.







• FRITERM is one of Europe's leading manufacturers of heat exchangers, providing solutions for industrial applications throughout the EMEA region.

Tuesday, 25 October 2022 Meeting of PG-ERC







 Systemair is a leading ventilation company with operations in 50 countries globally, manufacturing and market high-quality ventilation products.







 WIKA is a global market leader in pressure, temperature and level measurement technology. Working together with our customers, we develop comprehensive solutions based on our highquality measurement technology components, with the solutions ultimately being integrated in their business processes. We deliver 50 million quality products to over 100 countries every year. Worldwide, approximately 600 million WIKA measuring instruments are in use. WIKA employs around 10.000 people and owns over 40 subsidiaries worldwide. For the third time in a row, WIKA is proud to support the Eurovent Summit.



Exhibition Partner





 ISK-SODEX Istanbul is an International HVAC, Refrigeration, Insulation, Pump, Valve, Fitting, Water Treatment, Fire Prevention, Pool and Solar Energy Systems Exhibition.



Exhibition Partner





 Climatización y Refrigeración (C&R), an international exhibition in Spain in HVAC and Refrigeration, is one of the most important events which showcases the technological innovation and commitment to sustainability and energy efficiency of this industry.



Thank you to our partners Meet them in the foyer









Eurovent Product Group 'Energy Recovery Components' (PG-ERC)



Product scope

 Energy Recovery Components













About this Product Group Members

 Over 90 participants from 40+ leading European ERC manufactures, Eurovent Member Associations and Associate Members.







Key tasks

Advocacy

European Union legislation

Technical

- EN and ISO standardisation
- Development of Eurovent standards (codes of good practice)

Marketing

 General promotion of the European ERC industry and their stateof-the-art approaches



Example technical publications







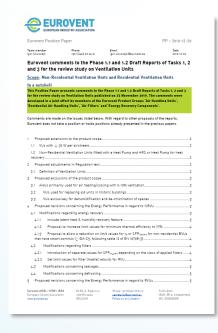
In cooperation with PG-AHU members

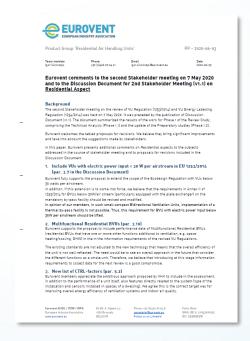


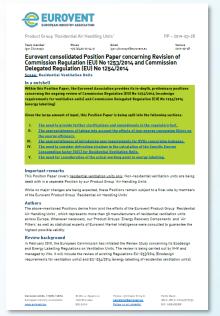
Examples of Advocacy – EU Legislation

Contribution to position papers on the review of Regulations (EU) 1253/2014











About this Product Group Examples of advocacy – European standarisation



Position Paper of the Product Group 'Energy Recovery Components'

MAIL - 2019-08-16

CEN/TC 156/WG 5

Team member Igor Sikonczyk

Phone +32 (0)466 90 04 01 igor.sikonczyk@eurovent.eu

Date 2019-08-16

Eurovent Position Paper concerning new hygienic-related construction requirements for plate exchangers in revised EN 13053:2019

Preamble

The Final draft of FprEN 13053 was approved in a Formal Vote by Members of CEN/TC 156 in August 2018. According to the resolution on decisions taken at the CEN/TC 156 Plenary Meeting held on 17 & 18 December 2018 in Delft (N1767), the standard was supposed to be published very soon.

Eurovent holds that technical/product standards are a powerful tool to ensure the level-playing-filed and fair competition. In this respect, Eurovent on behalf of its members would like to support the activities of the CEN/TC156/WG5 and provide useful input to the next revision of the EN 13053. Specifically, Eurovent would like to provide a position regarding requirements for construction requirements of plate heat exchangers.



Meeting Roadmap



- 2. 4. Formalities
- 5. Standard for interoperability between ERC and AHU software
- Measurement of dynamic ERC characteristics
- Coffee Break 15:30 16:00



- 7. Moisture recovery in ventilation and air-conditioning systems
- 8. Update on standards and regulations
- 9. Upcoming agenda items
- 10. Announcements
- 11. Next meeting(s)



2.- 4. Formalities



- Competition Law Rules, Bribery and corruption, Data protection
- Attendances and introduction of participants
- Approval of the Draft Agenda
- Approval of the minutes of the last meeting

Tuesday, 25 October 2022 Meeting of PG-ERC 32





2. Attendances and introduction of participants

Remember to sign the attendance list





3. Approval of the Draft Agenda

Tuesday, 25 October 2022 Meeting of PG-ERC 34



Draft Agenda

- Introduction, EUROVENTSUMMIT Open Session
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4. Approval of the minutes of last meetings

PG-ERC meeting Paris
15 June 2022

Action items

		_		Responsible	Status
	Provide comments on the draft recommended standard for interoperability of AHU/ERC software interfaces.	item Nº		Members	Completed
	Consider supporting further development of the APM and, if interested, contact Eurovent Secretariat for details.	7	ASAP	Members	Ongoing



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5. ERC/AHU software interoperability standard Review and approval of the final draft

- Final draft -> <u>PG-ERC 2202.52</u>
- Additional substantive amendment proposal by Mr Jaroslav Chlup for discussion:

I have another comment to this document on pages 9 and 10 regarding remarks on calculated parameters dp1 and dp2 on plate heat exchangers influenced by pressure difference dP22-11.

In praxis there is never dP22-11=0 Pa but rather dP2m-1m=0 Pa what means dP22-11=200 Pa and is today basis for deformation test = already known parameter (see Eurovent 17/12 2.1.2 and 3.2.2 and picture below).

So I recommend to change remarks to "Alternatively, dp1,2 can be given at dP22-11 = 200 Pa, and a dp1,2 deviation due to the actual dP22-11 is reported separately".

Tuesday, 25 October 2022 Meeting of PG-ERC 38



5. ERC/AHU software interoperability standard Review and approval of the final draft

 Additional substantive amendment proposal by Mr Jaroslav Chlup for discussion:

Δp_1	Pressure drop on exhaust air side at standard density (1.2 kg/m³) and dry conditions		 Δp₁ shall be given with consideration of the actual ΔP₂₂₋₁₁ impact due to the deformation of plates. Current barrier at present, a basis for deformation test is often only 200 Pa but new EN 308:2022 is expecting to test the PHE to its max allowed pressure difference Alternatively, Δp₁ can be given at ΔP₂₂₋₁₁ = 0, and a Δp₁ deviation due to the actual ΔP₂₂₋₁₁ is reported separately
	Comment on implementation in AHU software This value is used to compute the AHU air flow rate/pressure performance characteristic at standard conditions according to EN 13053	-	



5. ERC/AHU software interoperability standard

Next steps for dissemination and implementation

- Basic measures
 - Circulation in the Eurovent network (LinkedIn, partner HVAC magazines)
- Next steps to gain publicity
 - Translation into national languages?
 - Articles in HVAC magazines?
- PG-ERC members' support?





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6. Measurement of dynamic ERC characteristics initial discussion to define the issue

- New recommendation uses term 'dynamic characteristics of ERC'
 - Meaning simultaneous measurement of actual values for various parameters and their correlations
- Exact definition of this term and testing method are missing

Discussion on defining the problem

- Minimum number of measuring points?
- To be brought to CEN TC 110/WG 6 (EN 308)?
- To be resolved only at Certification level?





Coffee break

Join us in the foyer

See you again in 30 minutes!



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7. Moisture recovery in ventilation systems Proposal for a new PG-ERC recommendation

- Lack of comprehesive industry guide on benefits of moistur recovery
- Limited knowledge of benefits determination (energy, freezing, IAQ)
- No recognition of the potential reduction in electricity demand peaks (if any?)
- Concerns about the risk of viruses / germs transmission
- New expected ecodesign requirments (revised VU Regulation)
- HSLU have started a research project in the same area

Tuesday, 25 October 2022 Meeting of PG-ERC 45



7. Moisture recovery in ventilation systems

Ideas for the content

- Type of heat and moisture recovery exchangers
- Humidity recovery efficiency as a function of operating parameters condensation potential.
- Impact of moisture recovery on exchanger freezing
- Estimation of cooling source / humidifier power reduction
- Easy tool (table) for estimating annual energy savings kWh.a/(m³/s)
- Potential reduction of peak electricity consumption and its impact on grid optimalisation (case studies?)



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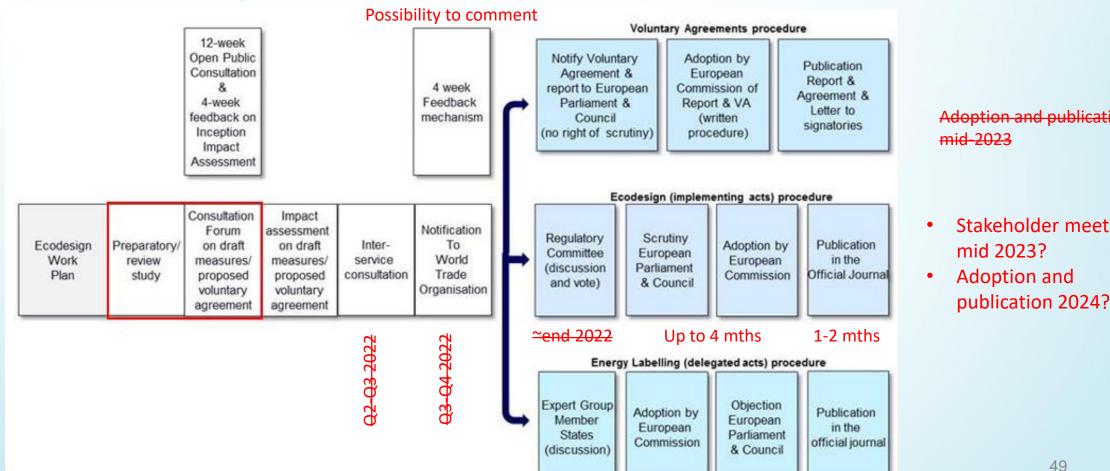


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8. Updates on standards and regulations

Review VU Regulation



Adoption and publication

Stakeholder meeting



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9. Upcoming agenda items



-> to be discussed in the meeting



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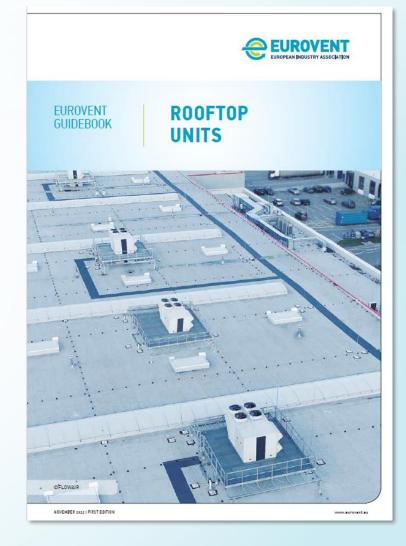
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15. Announcements

New Eurovent Rooftop Units Guidebook

Product Group 'Rooftop Units' developes a new Guidebook which gives a comprehensive overview of the rooftop technology





15. Announcements

New PG-AHU Recommendation



Eurovent 6/18 - 2022

Quality criteria for Air Handling Units

First Edition

Published on Thursday, 13 October 2022 by Eurovent, 80 Bd A. Reyers Ln, 1030 Brussels, Belgium secretariat@eurovent.eu



15. Announcements

New PG-RAHU Recommendation

- Enhance the enforcement of Ecodesign and Energy Labelling requirements for bidirectional residential ventilation
- Aimed at market surveillance to presents practical tips to facilitate effective compliance monitoring



Eurovent #/# - YYYY

Ecodesign and Energy Labelling compliance of bidirectional RVUs.
Requirements for suppliers and effective monitoring by MSAs

First Edition

Published on Choose date. by Eurovent, 80 Bd A. Reyers Ln, 1030 Brussels, Belgium secretariat(deurovent.eu



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16. Next meeting(s) Spring 2023 meeting

- Venue: ?
- Date: ?

Tuesday, 25 October 2022 Meeting of PG-ERC 57





End of meeting

See you soon and enjoy the rest of the **EUROVENT**SUMMIT!





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