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

EUROVENT SUMMIT
ANTALYA
25-28 OCT 2022

#BuildingBridges

www.eurovent.eu
Meeting of the Eurovent Product Group ‘Energy Recovery Components’ (PG-ERC)

Tuesday, 25 October 2022, 13:45-16:45, Palmiye
1. Introduction, EUROVENTSUMMIT Open Session
Good to know

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

• **UL Solutions** 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.
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.
BridgeBuilding Supporter

• **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.
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.
Other Sponsor

- 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.
Other Sponsor

- **FRITERM** is one of Europe’s leading manufacturers of heat exchangers, providing solutions for industrial applications throughout the EMEA region.
Other Sponsor

- **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 high-quality 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.

Tuesday, 25 October 2022
Meeting of PG-ERC
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
About this Product Group

Eurovent Product Group ‘Energy Recovery Components’ (PG-ERC)
About this Product Group

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.
About this Product Group

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 state-of-the-art approaches
About this Product Group

Example technical publications

Eurovent 17/11 - 2015
Guidelines for Heat Recovery

Eurovent 17/12 - 2021
Factors influencing performance of Energy Recovery Components embedded in Air Handling Units
First Edition
Published on 21 September 2021 by Eurovent, 80 Bd A. Reyers Ln, 1030 Brussels, Belgium
secretariat@eurovent.eu

Eurovent 6/15 - 2021
Air Leakages in Air Handling Units: Guidelines for Improving Indoor Air Quality and Correcting Performance
First Edition
Published on 17 February 2021 by Eurovent, 80 Bd A. Reyers Ln, 1030 Brussels, Belgium
secretariat@eurovent.eu

In cooperation with PG-AHU members
About this Product Group

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 standardisation

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**Preamble**

The Final draft of Far EN 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 12 & 13 December 2018 in Delhi, the standard was supposed to be published very soon.

Eurovent holds that technical/product standards are a powerful tool to ensure the level-playing-field and fair competition. In this respect, Eurovent on behalf of its members would like to support the activities of the CEN/TC 156/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

1. Introduction, EUROVENTSUMMIT Open Session

2. - 4. Formalities

5. Standard for interoperability between ERC and AHU software

6. 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
2. Attendances and introduction of participants

• Remember to sign the attendance list
3. Approval of the Draft Agenda
Draft Agenda

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Tuesday, 25 October 2022 Meeting of PG-ERC
4. Approval of the minutes of last meetings

PG-ERC meeting
Paris
15 June 2022

**Action items**

<table>
<thead>
<tr>
<th>Action</th>
<th>Agenda item №</th>
<th>Deadline</th>
<th>Responsible</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide comments on the draft recommended standard for interoperability of AHU/ERC software interfaces.</td>
<td>6</td>
<td>Friday, 15 July 2022</td>
<td>Members</td>
<td>Completed</td>
</tr>
<tr>
<td>Consider supporting further development of the APM and, if interested, contact Eurovent Secretariat for details.</td>
<td>7</td>
<td>ASAP</td>
<td>Members</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
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Tuesday, 25 October 2022
Meeting of PG-ERC
5. ERC/AHU software interoperability standard
Review and approval of the final draft

• Final draft -> PG-ERC – 2202.52

• 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 $dp_1$ and $dp_2$ on plate heat exchangers influenced by pressure difference $dP_{22-11}$. In praxis there is never $dP_{22-11}=0$ Pa but rather $dP_{2m-1m}=0$ Pa what means $dP_{22-11}=200$ 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, $dp_{1,2}$ can be given at $dP_{22-11} = 200$ Pa, and a $dp_{1,2}$ deviation due to the actual $dP_{22-11}$ is reported separately”.
5. ERC/AHU software interoperability standard
Review and approval of the final draft

• Additional substantive amendment proposal by Mr Jaroslav Chlup for discussion:

<table>
<thead>
<tr>
<th>$\Delta p_1$</th>
<th>Pressure drop on exhaust air side at standard density (1.2 kg/m³) and dry conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\Delta p_1$ shall be given with consideration of the actual $\Delta P_{22-11}$ impact due to the deformation of plates.</td>
</tr>
<tr>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>Alternatively, $\Delta p_1$ can be given at $\Delta P_{22-11} = 0$, and a $\Delta p_1$ deviation due to the actual $\Delta P_{22-11}$ is reported separately</td>
</tr>
</tbody>
</table>
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?

Tuesday, 25 October 2022
Meeting of PG-ERC
Meeting Roadmap

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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!
Meeting Roadmap

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

• Lack of comprehensive industry guide on benefits of moisture 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 requirements (revised VU Regulation)
• HSLU have started a research project in the same area
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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Tuesday, 25 October 2022
8. Updates on standards and regulations

Review VU Regulation

Possibility to comment

- Stakeholder meeting mid 2023?
- Adoption and publication 2024?
Meeting Roadmap

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Tuesday, 25 October 2022
Meeting of PG-ERC
9. Upcoming agenda items

-> to be discussed in the meeting
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Tuesday, 25 October 2022
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15. Announcements

New Eurovent Rooftop Units Guidebook

Product Group ‘Rooftop Units’ develops 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, 89 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
Meeting Roadmap

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9. Next meeting(s)
16. Next meeting(s)
Spring 2023 meeting

• Venue: ?
• Date: ?
End of meeting

See you soon and enjoy the rest of the EUROVENTSUMMIT!