System overview

Indoor swimming pool air conditioning | Comfort air conditioning | Process air conditioning

menerga
a systemair company

Menerga:

Minimal Energy Application

We supply air conditioning systems individually designed for your requirements. Our philosophy, "Creating a good indoor climate – through Minimal ENERGy Application", is something we have succeeded in every single day, since the company was founded over 30 years ago. We are proud to be part of the international successful Systemair group since 2013.

Our systems are first-class, intelligent works of engineering and handicraft. They remain reliable in operation for many, many years, significantly reducing operating costs. How is this possible? In the basic design stages we already integrate all the components for air conditioning, such as the ventilation, heating and refrigeration systems and equip everything with an intelligent control and regulation system. Every system is fully tested before delivery within the framework of a test run. The compact units are always delivered "ready for connection". At the building site, they are connected up and made operational in just a few work stages.

With over 40,000 systems installed worldwide, we cover almost every application. We not only sell the units, but also offer you our many years of experience. When looking for the best solution, we analyse the specific conditions at the location together with you. For the optimal solution we ask a lot of questions. Might it also be possible to use an alternative source of energy in order to reduce the operating costs even further? In this manner, we and our partners have jointly implemented countless projects which have received many awards for energy efficiency. We are proud of this. But what we really like about this is the know-how from jointly developed solutions, which allows operators and investors to save hard earned money – day after day, month after month and year after year. The investment costs are amortised within a short period.

We will be happy to produce reference lists for the building types in which you are interested in. And in the event that you surprise us with a totally new project: We are convinced to find the right solution for you. With our eyes sharpened by countless special projects, e.g. the „ALMA" telescope facility in the Atacama desert or the "Princess Elisabeth Station" at the South Pole, we will be happy to accept the challenge.

Convincing arguments for Menerga

- Intelligent Technology

  = lasting low operating costs
- Use of regenerative energy sources
- Very compact design
- Integrated control and regulation systems
- Factory test run as standard
- Ready-for-connection delivery
- Excellent maintenance concepts

Menerga participates in the Eurovent Certified Performance programm for Menerga Air range. Check ongoing validity of certificate:www.eurovent-certification.com or www.certiflash.com

Eurovent

Most of our ventilation units are as standard version Eurovent certified. This means the following series of the Menerga Air range with 50 mm panels and filter classes up to F7/F9: ThermoCond 38/39, Drysolair 11, Adcoolair 75, Trisolair 52/59, Dosolair 54, Adsolair 56/58, Resolair 62/64/66/68, Sorpsolair 72/73 and Adconair 76

Passivhaus Institut

The complete Resolair 64 series and Adconair up to 76 16 01 are officially certified components of the Passive House Institute. They are ideally suitable for passive houses and all other low energy buildings.

ATEX

The ATEX directive currently includes two directives in the field of explosion protection, the ATEX Directive 94/9/EC and the ATEX Workplace Directive 1999/92/EC. On request we produce your unit according the ATEX regulations for explosion-hazardous areas.

Manufacturers Association „RLT Hersteller Verband“

Menerga is a member of the german Manufacturers Association for AHU „Herstellerverband Raumlufttechnische Geräte e.V.“. Aim of this Association is to develop air handling units at the highest technical level as well as standardization work and technical recommendations.

Ecodesign directive

Most of our units fulfill the requirements of the Ecodesign directive from January 2018 already. With Menerga you can now already plan all the projects for the year 2018.

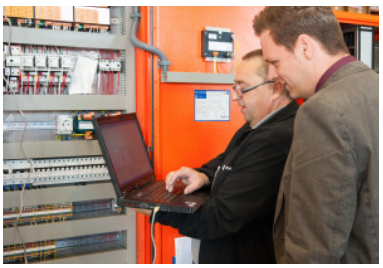
Of course we also have all common other certificates such as TÜV type examinations, hygiene certificates, ISO 9001 and more. Please contact us - we are happy to send you an overview or copies of the certificates you might require.

Experts at your service
Technical Service

Experts at your service, anytime, anywhere. With a comprehensive range of services and an extensive service network throughout Europe, the Menerga Technical Service guarantees the most economical and advanced services over the entire life cycle of your system, from the day of commissioning onwards.

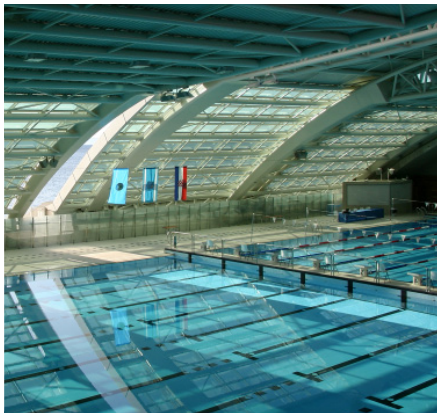
More than 120 service technicians at various service centres and 40 service engineers at the Menerga locations provide a professional all-inclusive service with the objective of achieving high availability of the systems and maximum efficiency. The range of services offered by the Menerga Technical Service covers everything from the test run at the factory and on-site commissioning through periodic servicing, repairs, remote maintenance and remote diagnosis by means of direct dial-up options, to the refurbishment and optimisation of the systems. And this all not only for Menerga units!

We supply you with the right service, customer-specific and application-specific. In the event of an emergency, you can reach us 24 hours a day on the following telephone number:
+49 208 9981-199



Menerga core competencies

Our areas of application



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INDOOR SWIMMING POOL AIR CONDITIONING

Private swimming pools, public swimming pool halls, adventure pools, sports pools, saline baths, hotel pools, school pools, therapeutic pools and many more.
Last not least: heat recovery from waste water.
The air conditioning of swimming pool halls is one of the most challenging areas for air conditioning. Here we started 35 years ago, this is where we grew up and where we are now market leaders and innovation pioneers. Our special competency lies in the high heat recovery efficiency lowering operating costs..

COMFORT AIR CONDITIONING

Low-energy buildings, offices, museums, sports facilities, schools, clinics, hotels, banks, historical buildings and many more.
With comfort air conditioning, the focus is on people. Our technology is based on the respective requirements of a project, but we also always look for the most efficient method with the lowest consumption of energy. For example, we cool with water in order to save electrical energy or make use of sorption-based air conditioning, with which you dehumidify with heat, e.g. from solar thermal energy or process waste heat. It is even possible to store excess solar heat for an indefinite period without any losses for the purposes of dehumidification.

PROCESS AIR CONDITIONING AND CHILLED WATER

Air conditioning of data centres, industrial drying, process cooling, air conditioning for warehouses, cold water generation and much more.
Last but not least: heat recovery from waste water.
The process air conditioning system must ensure that defined air conditions prevail in a defined situation. Menerga systems guarantee reliable drying, cooling or heating. In the field of chilled water, our systems reliably provide the desired water conditions. Saving energy through the use of intelligent technology is our top priority in this sector as well.

© polarfoundation.org

SPECIAL SOLUTIONS

Research projects, special applications
Challenges and unusual projects are the milestones of Menergas company history. Since the foundation of our company, we have designed individual solutions for many of our customers. We enjoy taking on challenging projects, knowing that these are the projects that bring valuable experience and which also improve the quality of our “standard” systems.

Insight:

Technology in detail

1 **Quality:** Menerga systems are developed in Germany and focus on highest quality.

2 **Profiles and frames:** the equipment design is based on a long-lasting, robust aluminum steel frame. Housing designs are available up to the highest thermal bridge class TB1.

3 **Control and regulation:** our systems are ready to connect upon delivery. The intelligent control & regulation equipment guarantees that the system always performs optimally.

4 **Filters:** all HVAC systems are equipped with an optimised filtration system to protect both people and equipment.

5 **Heating or cooling coils:** for covering the transmission heating or cooling requirement.

6 **Fans:** energy-efficient EC fan motor units.

7 **Indirect adiabatic evaporative cooling:** for cooling purposes, we use natural processes wherever possible, e.g. cooling with water.

8 **Heat exchangers:** we use polypropylene instead of aluminium with a big increase in efficiency and thus minimise both the weight of the system and CO_2 emissions during production.

9 **Droplet eliminator:** efficient mist collectors reliably eliminate aerosols from the air and prevent moisture from being carried into the air ducts.

10 **Air damper systems:** for precise control of the air flow.

11 **Air distribution:** intelligent bypass designs for efficient operation all year round.

12 **Compressor refrigeration system / heat pump:** meets the requirements of DIN EN 378 and is type-tested and certified in accordance with the pressure equipment directive. Individual acceptance is no longer necessary.

Automatically selects the most economical operating mode!

ThermoCond 29 20 01 - simplified illustration

ThermoCond 19/23/29

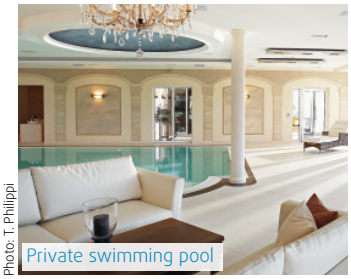
COMFORT THROUGH INTELLIGENT SWIMMING POOL TECHNOLOGY

The ThermoCond 19, 23 and 29 series are multifunctional compact systems for air conditioning private swimming pool halls. The combination of first-class components with precise control and regulation systems guarantees economical operation at all times, while ensuring the highest degree of comfort air conditioning. ThermoCond systems dehumidify, heat and ventilate the swimming pool hall and simultaneously create a good climate while protecting the fabric of the building. Additional heat sources such as radiators or panel heating systems are generally not required.

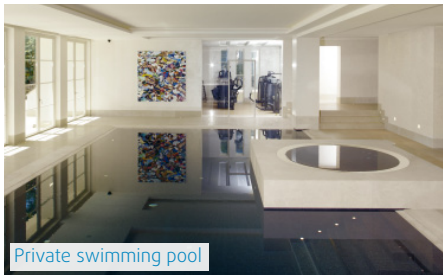
At a glance:

- **Dehumidifies, ventilates and heats**
- **Corrosion-free heat exchanger made from polypropylene**
- **Energy-saving unit design**
- **Compact design for minimal space requirements**
- **Integrated control and regulation system, compatible with all conventional building management systems**

Private swimming pool



Private swimming pool



Private swimming pool

Photo: T. Philippi

ThermoCond 19

with cross-counterflow heat exchanger

Unit Type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m³/h)	Dehumidification capacity [3] (kg/h)
19 11 01	1,530	570	1,590	410	1,100	7.1
19 15 01	1,530	730	1,590	440	1,500	9.7
19 20 01	1,690	730	1,910	540	2,000	12.9
19 25 01	1,690	890	1,910	610	2,500	16.2
19 35 01	1,690	1,210	1,910	720	3,500	22.6

ThermoCond 23

with cross-counterflow-cross heat exchanger

Unit Type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m³/h)	Dehumidification capacity [3] (kg/h)
23 12 01	2,580	570	1,210*	450	1,600	10.3
23 18 01	3,060	730	1,530*	600	2,500	16.2
23 26 01	3,700	730	1,850	870	3,200	20.7
23 36 01	3,700	1,050	1,850	1,100	5,000	30.2

ThermoCond 29

with cross-counterflow heat exchanger and integrated heat pump

Unit Type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m³/h)	Dehumidification capacity [3] (kg/h)
29 11 01	1,530	570	1,590	460 [5]	1,100	7.1
29 15 01	1,530	730	1,590	500 [5]	1,500	9.7
29 20 01	1,690	730	1,910	600 [5]	2,000	12.9
29 25 01	1,690	890	1,910	680 [5]	2,500	16.2
29 35 01	1,690	1,210	1,910	830 [5]	3,500	22.6

1 Door fitting assembly increases unit width by 25 mm each operating side
2 incl. 100 mm unit feet and 120 mm duct connection (Series 19/29)
incl. 100 mm unit feet and 60 mm cable duct (Series 23)
3 Dehumidification capacity according to VDI 2089
4 Switching cabinet arranged on top of unit, please add switching cabinet height (480 mm)
5 Different weight with optional pool water condenser

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process.

EUROVENT CERTIFIED PERFORMANCE
AHU No.: 14.11.003
Range: Menerga Air
www.eurovent-certification.com

Refers to range Menerga Air. Check ongoing validity of certificate: www.eurovent-certification.com or www.certiflash.com

Energieeffizienzklasse A+

Automatically selects the most economical operating mode!

ThermoCond 38 13 01 - simplified illustration

ThermoCond 38/39

A GOOD CLIMATE FOR PUBLIC INDOOR SWIMMING POOLS

Thanks to intelligent technology, the units in the ThermoCond 38 and 39 series achieve continuous comfort coupled with consistent energy efficiency. ThermoCond 38 is equipped with a full counterflow plate heat exchanger that achieves a heat recovery efficiency of over 95%*. The system can be equipped with an additional clean water heater that increases the efficiency of the entire system even further.

National ZwemCentrum de Tongelreep, Netherlands

Hotel Edelweiss Wagrain, Austria

Photo: Klaus Bauer

ThermoCond 38

with full counterflow plate heat exchanger and load-independent volume flow rate adjustment

Unit type	Length [1] (mm)	Width [2] (mm)	Height [3] (mm)	Weight (kg)	Opt. flow rate (m³/h)	Max. flow rate [4] (m³/h)	Dehumidification capacity [5] (kg/h)
38 03 01	4,810	790	1,700	1,190	2,600	3,500	16.8
38 05 01	4,970	1,110	1,700	1,460	3,900	5,300	25.2
38 06 01	5,610	790	2,340	1,600	4,000	6,000	25.8
38 10 01	5,610	1,110	2,340	1,900	6,000	9,500	38.8
38 13 01	5,770	1,430	2,340	2,350	7,900	10,500	51.0
38 16 01	5,770	1,750	2,340	2,650	9,800	14,000	63.3
38 19 01	5,770	2,070	2,340	3,000	11,800	18,000	76.2
38 25 01	6,250	2,070	2,980	3,900	15,800	22,500	102.1
38 29 01	6,250	2,390	2,980	4,300	18,400	25,900	118.9
38 37 01	6,250	3,030	2,980	5,700	23,600	35,900	152.5

ThermoCond 39

with asymmetric high-capacity heat exchanger, integrated output-regulated heat pump and efficient volume flow control and integrated clean water heater

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m³/h)	Max. flow rate (m³/h)	Dehumidification capacity [4] (kg/h)
39 03 01	3,940	790	1,700	1,050	2,600	3,500	17.1
39 05 01	4,100	1,110	1,700	1,300	3,900	5,300	25.2
39 06 01	4,740	790	2,340	1,350	4,000	6,300	25.8
39 10 01	4,740	1,110	2,340	1,650	6,000	9,500	38.8
39 13 01	4,900	1,430	2,340	2,050	7,900	12,600	51.0
39 16 01	4,900	1,750	2,340	2,250	9,800	15,800	63.3
39 19 01	4,900	2,070	2,340	2,500	11,800	19,000	76.2
39 25 01	5,700	2,070	2,980	3,250	15,800	25,000	102.1
39 32 01	6,180	2,070	3,620	3,950	19,900	30,000	128.6
39 36 01	6,180	2,390	3,620	4,650	23,100	33,500	149.2

At a glance:

- **Dehumidifies, ventilates and heats**
- **Corrosion-free heat exchanger made from polypropylene**
- **Two-stage supply air filtration**
- **Heat recovery efficiency up to > 95%***

1 May change depending on choosen option, e.g. recuperator in short version (- 960 mm)
2 Door fitting assembly increases unit width by 65 mm each operating side
3 incl. 120 mm base frame, incl. 60 mm cable duct
4 May require alteration of the technical equipment
5 Dehumidification capacity according to VDI 2089 at opt. flow rate.

At series 39 different weight with optional pool water condenser

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. For service work at unit type 38 37 01 a clearance at the rear of at least 1.500 mm is required. For service work above the unit, please allow 50 mm working height clearance above the cable duct. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process.

* 2 at RA = 30° C / 54% r.h.; OA = -12° C / 90% r.h.; 1/3 OA rate

Automatically selects the most economical operating mode!

Trisolair 59 26 01 - simplified illustration

fulfills ECODESIGN DIRECTIVE 2009/125/EG 2016 + 2018

Trisolair

THREE-STAGE RECUPERATIVE HEAT RECOVERY

Units in the Trisolair 52 and 59 series achieve the highest heat recovery efficiency at low to medium air volume flow rates and can be used in a wide range of comfort air conditioning applications. Thanks to their compact design, the systems are ideally suited for refurbishment projects. A compressor refrigeration system integrated into the 59 series increases the cooling capacity of the overall system at higher temperatures and additionally allows the dehumidification of outside air.

Trisolair 52

with cross-counterflow-cross heat exchanger

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m^3/h)
52 12 01	2,580	570	1,210*	420	1,200
52 18 01	3,060	730	1,530*	560	1,800
52 26 01	3,700	730	1,850	830	2,600
52 36 01	3,700	1,050	1,850	1,050	3,600

Trisolair 59

with cross-counterflow-cross heat exchanger and Integrated compressor refrigeration system

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m^3/h)
59 18 01	4,110	730	1,530	770	1,800
59 26 01	4,750	730	1,850	1,050	2,600
59 36 01	4,750	1,050	1,850	1,280	3,600

1 Door fitting assembly increases unit width by 25 mm each operating side
2 Height incl. 100 mm unit feetand 60 mm cable duct
3 May require alteration of the technical equipment
* Switching cabinet arranged on top of unit, please add switching cabinet height (480 mm).

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process. With every single selection we do to your individual requirements our certified selection software automatically checks the Ecodesign compliance level 1 and 2.

Specifications of technical data relate to the optimum flow rate and return air condition 22° C / 40% r.h., outside air condition -12° C / 90% r.h. and standard density (1.204 kg/m^3), unless otherwise specified.

Solvis „Zero Emission Factory", Braunschweig

At a glance:

- **Over 80% temperature efficiency through three-stage recuperative heat recovery**
- **Energy efficiency class H1 according to EN 13053:2012**
- **Energy-saving EC fan motors**
- **Integrated compressor refrigeration system (59 series)**
- **Fulfils the requirements of VDI 6022**

Hotel Dollenberg

Automatically selects the most economical operating mode!

Dosolair 54 13 01 - simplified illustration

Dosolair

TWO-STAGE RECUPERATIVE HEAT RECOVERY

EUROVENT CERTIFIED PERFORMANCE
AHU No.: 14.11.003
Range: Menerga Air
www.eurovent-certification.com

Energieeffizienzklasse A+

fulfills ECODESIGN DIRECTIVE 2009/125/EC 2016 + 2018

Eurovent seal refers to range Menerga Air, more information on page 6. Check ongoing validity of certificate: www.eurovent-certification.com or www.certiflash.com

Units in the Dosolair 54 series achieve high heat recovery efficiency at medium to high air volume flow rates and can be used in a wide range of comfort air conditioning applications. The combination of first-class components with precise control and regulation systems guarantees economical operation at all times, while ensuring the highest degree of comfort air conditioning.

At a glance:

- For heat and cooling recovery
- Intelligent air bypass duct
- Two-stage supply air filtration
- Integrated defrost function
- Freely configurable HVAC system

District Hospital Mainkofen

TLLV Bad Langensalza

Dosolair 54

with two-stage heat recovery

Unit type	Length (mm)	Width [1] (mm)	Height (mm)	Weight (kg)	Opt. flow rate (m^3/h)
54 06 01	5,630	790	2,340	1,500	4,000
54 10 01	5,630	1,110	2,340	1,800	6,000
54 13 01	5,790	1,430	2,340	2,150	7,900
54 16 01	5,790	1,750	2,340	2,450	9,800
54 19 01	5,790	2,070	2,340	2,750	11,800
54 25 01	6,430	2,070	2,980	3,650	15,800
54 32 01	7,230	2,070	3,620	4,500	19,900
54 36 01	7,230	2,390	3,620	5,400	23,100

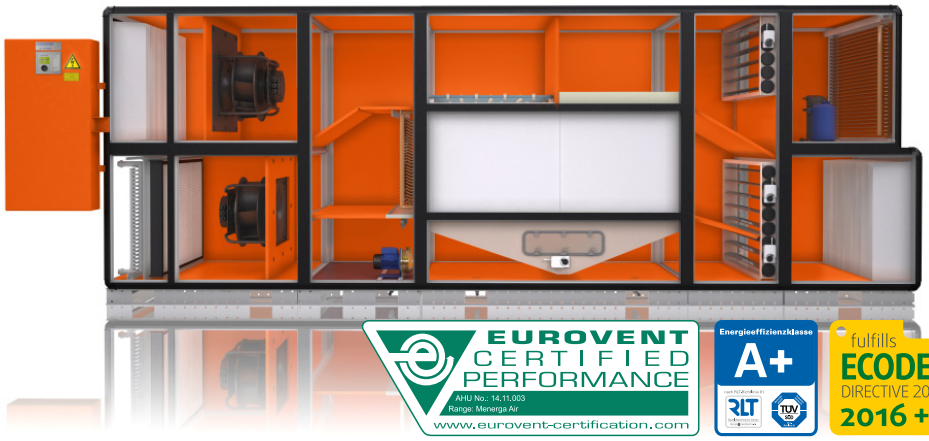
Units with opt. volume flow 40.800 and special units on request.

1 Door fitting assembly increase unit width by 65 mm each operating side
2 May require alteration of the technical equipment

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. For service work above the unit, please allow 50 mm working height clearance above the cable duct. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process. With every single selection we do to your individual requirements our certified selection software automatically checks the Ecodesign compliance level 1 and 2.

Specifications of technical data relate to the optimum flow rate and return air condition 22° C / 40% r.h., outside air condition -12° C / 90% r.h. and standard density (1.204 kg/m^3), unless otherwise specified.

Automatically selects the most economical operating mode!



Adsolair 58 13 01 - simplified illustration

Adsolair

COOLING WITHOUT POWER CONSUMPTION

EUROVENT CERTIFIED PERFORMANCE
AHU No.: 14.11.003
Range: Menerga Air
www.eurovent-certification.com

Energieeffizienzklasse A+

fulfills ECODESIGN DIRECTIVE 2009/125/EC 2016 + 2018

Eurovent seal refers to range Menerga Air, more information on page 6. Check ongoing validity of certificate: www.eurovent-certification.com or www.certiflash.com

Units in the Adsolair series achieve high heat recovery efficiencies and can be used in a wide variety of comfort air conditioning applications. The integrated adiabatic evaporative cooling system allows temperature reductions of over 12 K*.

A compressor refrigeration system integrated into the 58 series increases the cooling capacity of the overall system at high temperatures and allows the dehumidification of outside air. The combination of first-class components with precise control and regulation systems guarantees economical operation at all times, while ensuring the highest degree of comfort air conditioning.

* at OA = 34° C / 40% r.h.

Adsolair 56

with double plate heat exchanger and adiabatic evaporative cooling system

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m³/h)
56 03 01	4,350	790	1,700	1,100	2,600
56 05 01	4,510	1,110	1,700	1,350	3,900
56 06 01	5,630	790	2,340	1,550	4,000
56 10 01	5,630	1,110	2,340	1,850	6,000
56 13 01	5,790	1,430	2,340	2,200	7,900
56 16 01	5,790	1,750	2,340	2,520	9,800
56 19 01	5,790	2,070	2,340	2,800	11,800
56 25 01	6,430	2,070	2,980	3,800	15,800
56 32 01	7,230	2,070	3,620	4,650	19,900
56 36 01	7,230	2,390	3,620	5,500	23,100

Adsolair 58

with double plate heat exchanger, adiabatic evaporative cooling system and compressor refrigeration system

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Opt. flow rate (m³/h)
58 03 01	4,670	790	1,700	1,300	2,600
58 05 01	4,830	1,110	1,700	1,600	3,900
58 06 01	5,950	790	2,340	1,780	4,000
58 10 01	5,950	1,110	2,340	2,100	6,000
58 13 01	6,110	1,430	2,340	2,550	7,900
58 16 01	6,110	1,750	2,340	2,830	9,800
58 19 01	6,110	2,070	2,340	3,300	11,800
58 25 01	6,750	2,070	2,980	4,400	15,800
58 32 01	7,550	2,070	3,620	5,350	19,900
58 36 01	7,550	2,390	3,620	6,350	23,100

Specifications of technical data relate to the optimum flow rate and return air condition 22° C / 40% r.h., outside air condition -12° C / 90% r.h. and standard density (1.204 kg/m³), unless otherwise specified.

At a glance:

- **Over 75% temperature efficiency**
- **Energy-saving EC fan motors**
- **Intelligent air bypass duct**
- **Two-stage supply air filtration**
- **Meets the requirements of VDI 6022**

Mercator Pesnica, Slowenien

USM Furniture Buehl

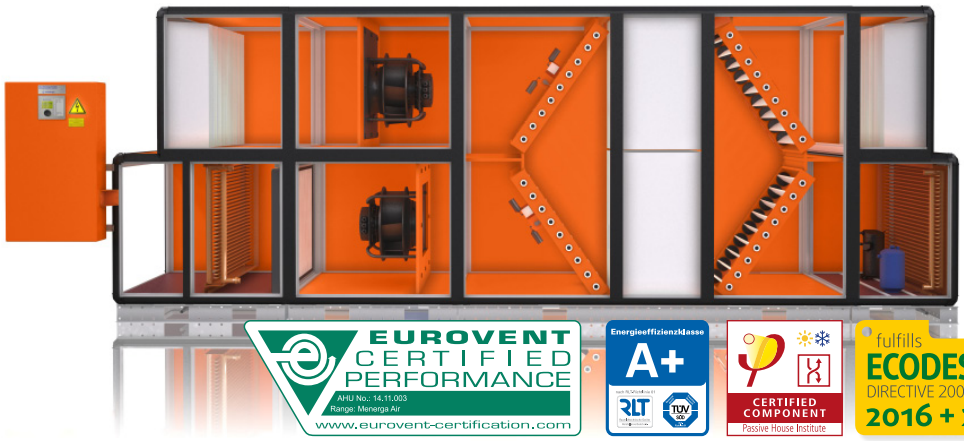
Photo: USM

Units with max. volume flow 52.800 m³/h and special units on request.

1 Door fitting assembly increases unit width by 65 mm each operating side
2 incl. 120 mm base frame, plus 60 mm cable duct
3 May require alteration of the technical equipment

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. For service work above the unit, please allow 50 mm working height clearance above the cable duct. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process. With every single selection we do to your individual requirements our certified selection software automatically checks the Ecodesign compliance level 1 and 2.

Automatically selects the most economical operating mode!



Resolair 68 10 01 - simplified illustration

Resolair

REGENERATIVE HEAT RECOVERY

EUROVENT CERTIFIED PERFORMANCE AHU No.: 14.11.003 Range: Menerga Air www.eurovent-certification.com

Energieeffizienzklasse A+

CERTIFIED COMPONENT Passive House Institute

fulfills ECODESIGN DIRECTIVE 2009/125/EC 2016 + 2018

Eurovent seal refers to range Menerga Air, more information on page 6. Check ongoing validity of certificate: www.eurovent-certification.com or www.certiflash.com
Passive House seal refers to series 64

Units in the Resolair 62 and 66 series use regenerative heat recovery technology to achieve the highest heat recovery efficiency with low internal pressure losses. These are characterised by both high thermal and high electrical efficiency.

A compressor refrigeration system integrated into 66 and 68 series increases the cooling capacity of the overall system at high temperatures.

At a glance:

- For heat and cooling recovery
- Over 90% temperature efficiency
- Energy efficiency class H1 according to EN 13053:2012
- Humidity recovery up to 70%
- Fulfils the requirements of VDI 6022

Etrium Cologne, DGNB seal in gold

City Hall Stralsund

Photo:Hansestadt Stralsund / KOSLIK

Industry-Resolair 65

Unit type	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Max. volume flow rate [3] (m³/h)
65 07 91	4,110	3,700	1,170	2,300	10,000
65 17 91	5,390	4,340	1,490	4,550	20,000
65 26 91	6,030	4,660	1,810	6,100	30,000
65 36 91	6,030	4,980	2,130	8,050	40,000

Resolair 62/64

with highly efficient regenerative heat storage accumulators

Unit type	Length (mm)	Width (mm)	Height [1] (mm)	Weight (kg)	Opt. flow rate (m³/h)
62 12 01	2,010	570	1,210*	410	1,200
62 18 01	2,170	730	1,530*	550	1,800
62 26 01	2,330	730	1,850	600	2,600
62 36 01	2,330	1,050	1,850	810	3,600
64 05 01	4,330	1,110	1,700	1,300	3,900
64 07 01	4,650	1,110	2,340	1,650	6,000
64 10 01	4,810	1,430	2,340	2,050	7,900
64 12 01	4,810	1,750	2,340	2,350	9,800
64 15 01	4,970	2,070	2,340	2,600	11,800
64 21 01	5,610	2,070	2,980	3,550	15,800
64 26 01	5,930	2,070	3,620	4,000	19,900
64 32 01	5,930	2,390	3,620	4,400	23,100

Resolair 66/68

with highly efficient regenerative heat storage accumulators and compressor refrigeration system

Unit type	Length (mm)	Width (mm)	Height [1] (mm)	Weight (kg)	Opt. flow rate (m³/h)
66 18 01	3,310	730	1,530	790	1,800
66 26 01	3,470	730	1,850	850	2,600
66 36 01	3,470	1,050	1,850	1,100	3,600
68 05 01	5,380	1,110	1,700	1,750	3,900
68 07 01	5,700	1,110	2,340	2,150	6,000
68 10 01	5,860	1,400	2,340	2,700	7,900
68 12 01	6,020	1,750	2,340	3,050	9,800
68 15 01	6,180	2,070	2,340	3,500	11,800
68 21 01	6,980	2,070	2,980	4,450	15,800
68 26 01	7,300	2,070	3,620	5,100	19,900
68 32 01	7,300	2,390	3,620	5,500	23,100

Units with max. volume flow 51.000 m³/h and special units on request.

1 Door fitting assembly increases unit width by 25 mm each operating side (series 62 und 66) respectively 65 mm (series 64 und 68). Refrigerant pipe duct on backside of units of series 66 increases unit widht by 80 mm.
2 Height incl. 100 mm unit feet and 60 mm cable duct (series 62 und 66) respectively incl. 120 mm base frame, incl. 60 mm cable duct (series 64 und 68)
3 May require alteration of the technical equipment
* Controls cabinet arranged on top of unit, please add controls cabinet height (480 mm).

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. For service work above the unit, please allow 50 mm working height clearance above the cable duct. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process. With every single selection we do to your individual requirements our certified selection software automatically checks the Ecodesign compliance level 1 and 2.

Specifications of technical data relate to the optimum flow rate and return air condition 22° C / 40% r.h., outside air condition -12° C / 90% r.h. and standard density (1.204 kg/m³), unless otherwise specified.

Sorpsolair 73 22 01 - simplified illustration

Sorpsolair

COOLING WITH THE SUN

Automatically selects the most economical operating mode!

Energieeffizienzklasse A+

fulfills ECODESIGN DIRECTIVE 2009/125/EC 2016 + 2018

Units in the Sorpsolair 72 and 73 series were developed especially to use regenerative energy. The innovative air conditioning concept combines sorption-based dehumidification, adiabatic evaporative cooling and an efficient heat recovery system in a compact comfort air conditioning unit. The 72 series, without a brine tank, is suitable for directly using the waste heat, e.g. from combined heat and power system (CHPS), while the brine tank integrated into the 73 series allows the storage of solar thermal energy and hence increases the total efficiency of your installations. The combination of first-class components with precise control and regulation systems guarantees economical operation at all times, while ensuring the highest degree of comfort air conditioning. Sorpsolair systems are designed for all office and business buildings, as well as many other building types.

Freight staff canteen Airport Munich

Freiburg University Hospital

Photo: Universitätsklinikum Freiburg

At a glance:

- **Over 75% temperature efficiency**
- **Thermal coefficient of efficiency COP_{th} from 1.5**
- **Brine regeneration through the use of solar thermal energy, district heat or existing process heat at a low-temperature level (from 65° C flow)**
- **Intelligent air bypass duct**
- **Integrated defrost function**

Sorpsolair 72/73

Series 72 without brine tank,
Series 73 with brine tank

Unit Type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight [3] (kg)
.. 04 01	6,580	890	2,190	2,300
.. 05 01	6,580	1,050	2,190	2,500
.. 06 01	6,580	1,370	2,190	2,800
.. 10 01	8,430	1,050	2,510	3,600
.. 13 01	8,430	1,370	2,510	4,000
.. 16 01	8,430	1,690	2,510	4,500
.. 19 01	8,590	2,010	2,510	5,000
.. 22 01	8,590	2,330	2,510	5,800

Dimensions of brine tank

Unit type	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
73 04 01	4,180	1,050	2,010	430
73 05 01	4,180	1,050	2,010	430
73 06 01	4,180	1,050	2,010	430
73 10 01	4,180	1,050	2,010	430
73 13 01	4,500	1,050	2,330	535
73 16 01	4,500	1,050	2,330	535
73 19 01	5,460	1,050	2,330	650
73 22 01	5,460	1,050	2,330	650

1 Door fitting assembly increases unit width by 25 mm each operating side
2 incl. 120 mm base frame, plus 60 mm cable duct
3 Empty weight, not operation weight

Specifications of technical data relate to the optimum flow rate and return air condition 22° C / 40% r.h., outside air condition -12° C / 90% r.h. and standard density (1.204 kg/m³), unless otherwise specified.

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. For service work above the unit, please allow 50 mm working height clearance above the cable duct. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process. With every single selection we do to your individual requirements our certified selection software automatically checks the Ecodesign compliance level 1 and 2.

Automatically selects the most economical operating mode!

Adconair 76 13 01 with refrigeration system - simplified illustration

Adconair

FULL COUNTERFLOW HEAT RECOVERY

Eurovent seal refers to range Menerga Air, more information on page 6. Check ongoing validity of certificate: www.eurovent-certification.com or www.certiflash.com

With its full counterflow plate heat exchanger, the Adconair 76 series is setting new standards in the ventilation industry. The new heat exchanger works with a real counterflow proportion of over 80% . The internal pressure losses of the recuperator is just 150 Pa. Adconair units are optimally adapted for use in comfort air conditioning. The unit series is designed to comply with the requirements of the highest energy efficiency classes. Ideal areas of application include all residential and non-residential buildings. Thanks to their high capacity and intelligent regulation system, the units always create an excellent indoor climate.

Available options:
- Adiabatic evaporative cooling
- AdiabaticPro
- Compressor refrigeration system, also available as reversable system

At a glance:

- **Designed for the requirements of the highest energy efficiency classes**
- **HRC class H1, even at high air velocities**
- **Thermal bridge factor kb = 0.78 - class TB1**
- **Two-stage supply air filtration**
- **Meets the requirements of the German Energy Saving Ordinance (EnEV) and the German Renewable Energies Heating Law (EEWärmeG)**


Menerga Muelheim, head office

Adconair
with counterflow plate heat exchanger

Unit type	Length [1] (mm)	Width [2] (mm)	Height [3] (mm)	Weight [4] (kg)	Opt. flow rate (m^3/h)
76 03 01	4,810	790	1,700	1,220	2,600
76 05 01	4,970	1,110	1,700	1,500	3,900
76 06 01	5,610	790	2,340	1,650	4,000
76 10 01	5,610	1,110	2,340	1,900	6,000
76 13 01	5,770	1,430	2,340	2,350	7,900
76 16 01	5,770	1,750	2,340	2,650	9,800
76 19 01	5,770	2,070	2,340	3,000	11,800
76 25 01	6,250	2,070	2,980	3,900	15,800
76 29 01	6,250	2,390	2,980	4,300	18,400
76 37 01	6,250	3,030	2,980	5,700	23,600

1 May change depending on choosen option, e.g. AdiabaticPro, compressor refrigeration system, recuperator in short version (- 960 mm)
1 Door fitting assembly increases unit width by 65 mm each operating side
2 incl. 120 mm base frame, incl. 60 mm cable duct
3 If option Adiabatic or AdiabaticPro is choosen, please affirm possible additional weight.!
4 May require alteration of the technical equipment. If option Adiabatic or AdiabaticPro is choosen, we recommend optimum flow rate as maximum.

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. For service work above the unit, please allow 50 mm working height clearance above the cable duct. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process. With every single selection we do to your individual requirements our certified selection software automatically checks the Ecodesign compliance level 1 and 2.

Specifications of technical data relate to the optimum flow rate and return air condition 22° C / 40% r.h., outside air condition -12° C / 90% r.h. and standard density (1.204 kg/m^3), unless otherwise specified.

Automatically selects the most economical operating mode!

AquaCond 44 08 21 - simplified illustration
Picture shows special equipment heat recovery bypass

AquaCond

HEAT RECOVERY FROM WASTE WATER

Far too often, warm waste water is discharged into the sewer system, together with all the energy it contains. Units in the AquaCond series recover the majority of this heat energy and transfer it to the clean water. The combination of recuperator and heat pump means that only approx. 10% of the energy is required that would be needed by a conventional heating system. The heat exchanger cleaning system integrated in this series even allows the units to be used where the waste water is contaminated with dirt. Recover valuable energy, anywhere that warm waste water is produced and simultaneously warm clean water has to be provided, e.g. in the shower areas of swimming pools, hospitals or residential homes, in laundries and in many industrial processes.

At a glance:

- **Heat recovery from clean or contaminated waste water for heating clean water**
- **Automatic heat exchanger cleaning**
- **Flow rate regulation**

AquaCond 44

with automatic heat exchanger cleaning

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight [3] (kg)	Max. quantity of flow m³/h
44 08 x1	1,050	730	1,370	430	0.8
44 12 x1	1,210	890	1,530	450	1.2
44 18 x1	1,370	890	1,690	650	1.8
44 24 x2	2,420	890	1,530	860	2.4
44 36 x2	2,740	890	1,690	1,260	3.6
44 54 x3	4,110	890	1,690	1,900	5.4

1 Door fitting assembly increases unit width by 25 mm each operating side
2 plus unit feet
3 Empty weight, no operation weight

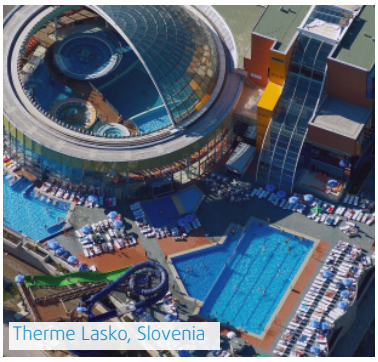
Please comply with the dimensions for body size and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process.

Technical data specified refer to max. volume flow rate and waste water temperature 31° C / clean water temperature 10° C

Westfalenbad Hagen

Kantrida Rijeka, Slovenia

Photo: Stadt Rijeka



Therme Lasko, Slovenia

Drysolair 11 15 01 - simplified illustration

Drysolair

Automatically selects the most economical operating mode!

ENERGY-SAVING AIR DRYING

Units in the Drysolair series were developed especially for removing high levels of moisture from inside a building. Through the precooling in the recuperator of the air to be dried, the unit works with considerably lower compressor performance than a simple heat pump system and creates a consistently good climate in ice rinks. It is also suited to the drying of buildings or industrial drying processes. The combination of first-class components with precise control and regulation guarantees economical operation at all times and adjusts the temperature and humidity to requirements.

At a glance:

- **For all drying applications**
- **Low connection capacity through the upstream installation of a recuperator**
- **Corrosion-free cross counterflow plate heat exchanger**
- **Intelligent air bypass duct**
- **Compact design**

District Hospital Regensburg

Photo: Bezirksklinikum Regensburg

Drysolair 11

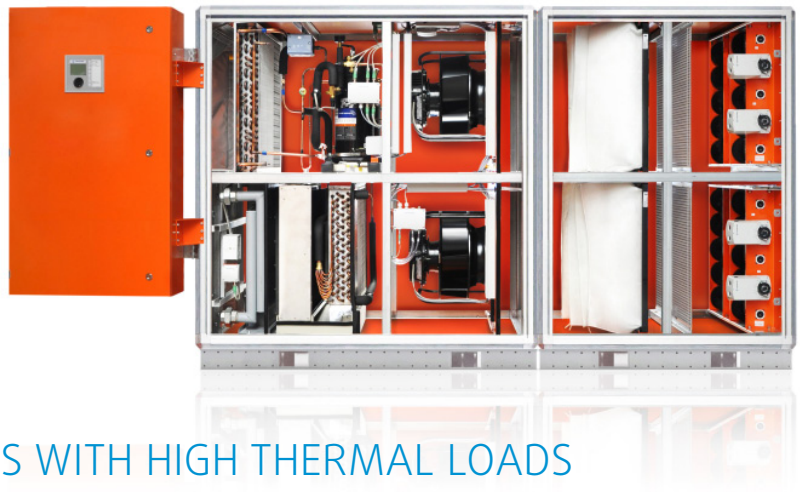
Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Dehumidification capacity [3]	Opt. flow rate (m^3/h)
11 10 01	730	730	2,245	450	4.5	1,000
11 15 01	730	730	2,245	450	6.8	1,500
11 40 01	1,050	1,050	2,725	660	17.6	4,000
11 60 01	1,050	1,050	2,725	680	21.6	6,000

All technical data relate to optimum flow rate through heat recovery system and the air inlet conditions specified below

1 Door fitting assembly increases unit width by 25 mm each operating side
2 incl. 100 mm unit feet
3 Air inlet 20° C / 70% r.h., other designs available upon request

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process.

Automatically selects the most economical operating mode!



Frecolair 14 03 01 with supplementary equipment LPHW and additional unit division - simplified illustration

Frecolair

FREE COOLING FOR ROOMS WITH HIGH THERMAL LOADS

Units in the Frecolair 14 series were developed especially for discharging high internal heat loads into the atmosphere from buildings without humidity requirements. In data processing centres and technical facilities, these units ensure reliable operation and precisely regulate the supply air temperature down to the degree. The variability of the operating modes, in combination with first-class components and precise control and regulation systems, guarantees economical operation at all times.

At a glance:

- **For discharging high heat loads**
- **Advantages of free cooling and recirculation mode in a single unit**
- **High electrical efficiency thanks to the lowest possible internal pressure losses**
- **Low space requirement, no additional construction measures for cooling are required**

Centre MallyLumieérs, Switzerland

Frecolair 14

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)	Cooling capacity [3] (kW)	effect. cooling capacity [3] (kW)	Optimum flow rate Return-/Supply air (m³/h)	Optimum flow rate Outside-/Exhaust air (m³/h)
14 03 01	2,330	730	1,490	660	11.3	10.5	2,600	3,500
14 04 01	2,490	890	1,490	700	14.2	13.1	3,300	4,600
14 05 01	2,490	1,050	1,490	800	17.5	16.2	4,000	5,300
14 06 01	2,490	730	2,130	850	19.9	18.2	4,700	6,300
14 10 01	2,650	1,050	2,130	1,210	30.8	28.1	7,100	9,500
14 13 01	2,810	1,370	2,130	1,450	38.7	35.2	9,500	12,600
14 16 01	2,970	1,690	2,130	1,670	47.5	43.4	11,800	15,800
14 19 01	2,970	2,010	2,130	1,850	58.1	52.7	14,200	19,000
14 25 01	3,220	2,010	2,860	2,150	72.6	65.7	18,700	25,000
14 32 01	3,540	2,010	3,500	2,350	85.4	76.7	24,000	32,000
14 36 01	3,540	2,330	3,500	2,550	99.0	88.8	27,000	36,000

Animal Park Hellabrunn, Munich

All technical data relate to the optimum flow rate through heat recovery system and outside air conditions 32° C / 40% r.h., return air conditions 28° C / 40% r.h.

1 Door fitting assembly increases unit width by 25 mm each operating side
2 incl. 120 mm base frame
3 Recirculation air cooling mode, supply air temperature approx. 17° C

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process.

Adcoolair 751301 - simplified illustration

Adcoolair

GREEN IT

Automatically selects the most economical operating mode!

Thanks to the combination of indirect free cooling, adiabatic evaporative cooling and the integrated output-regulated compressor refrigeration system, each of which supports the effectiveness of the others, the Adcoolair 75 unit series allows heat dissipation in recirculation mode from data processing centres and other rooms with high thermal loads, with minimal space requirements, low air pressure losses within the unit and very little energy consumption. The use of energy-efficient EC fan motors in combination with a demand-based flow rate control system, additionally contributes to the reduction of operating costs.

Banco Santander, Spain

Communicode, Essen

Adcoolair 75

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight (kg)
75 02 01	2,900	730	2,130	1,020
75 04 01	2,900	1,050	2,130	1,240
75 06 01	2,900	1,370	2,130	1,430
75 08 01	3,380	1,050	2,770	1,490
75 13 01	3,380	1,370	2,770	1,800
75 22 01	3,380	2,650	2,770	2,660
75 32 01	4,020	3,060	3,250	4,180
75 42 01	4,020	4,020	3,250	5,360
75 52 01	4,020	4,660	3,250	6,170

1 Door fitting assembly increases unit width by 25 mm each operating side
2 incl. 120 mm base frame

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process.

At a glance:

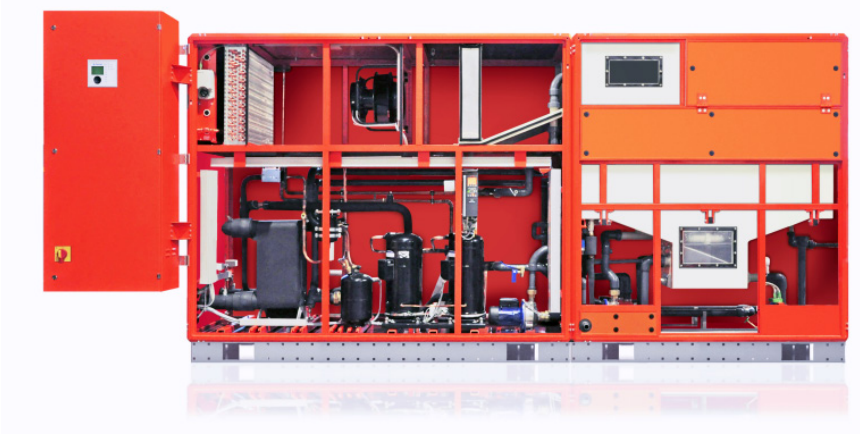
- **Compact dimensions, optimised for installation in technology centres without cooling tower**
- **No contamination of the process airflow with dust or corrosive pollutants**
- **Moisture content of the process air remains unaffected**
- **Low airflow rate required for heat dissipation**
- **Excellent PUE values of up to 1.1**

Unit type		75 02 01	75 04 01	75 06 01	75 08 01	75 13 01	75 22 01	75 32 01	75 42 01	75 52 01
Total cooling capacity [a]	kW	11.7	22.1	31.1	37.8	54.1	103.5	156.1	201.9	246.5
Air volume flow process air	m^3/h	2,200	4,500	6,300	7,900	11,000	22,000	32,000	42,000	50,000
Air volume flow outside air - exhaust air	m^3/h	1,300	2,700	3,800	4,700	6,600	13,200	19,200	25,200	30,000
Energy efficiency ratio [b]	EER	5.5	7.5	7.5	8.3	8.2	9.3	9.0	9.1	9.2
Cooling capacity of adiabatic evaporation cooling system	kW	4.8	9.9	14.0	17.4	24.2	48.4	70.3	92.2	110.5
Rated compressor input	kW	1.5	2.3	3.5	3.9	5.8	10.3	15.7	20.7	25.1
Mechanical cooling capacity	kW	6.9	12.2	17.1	20.4	29.9	55.1	85.8	109.7	136.0

Specifications of technical data relate to the return air conditions 34° C / 20% r.h., outside air conditions 35° C / 40% r.h.

a Taking into account power consumption for adiabatic pump(s)
b Evaporative cooling + compressor refrigeration system; SA = 20° C

Automatically selects the most economical operating mode!



Hybritemp 98 93 01 - simplified illustration

Hybritemp

COMPACT CHILLED WATER UNITS

Cooling systems using chilled water can be found in a wide range of areas: Whether for discharging excess heat from rooms with high thermal loading, for cooling industrial manufacturing processes or for the comfort air conditioning of buildings. The units of the Hybritemp 97 and 98 series are optimally adapted to these requirements. The "all-in-one" unit with a small equipment footprint offers efficient cooling. It is generally not necessary for cooling system components to be installed at or on the exterior of the building – and this drastically reduces the overall investment costs.

At a glance:

- **Efficient cooling through the use of natural resources**
- **Very high power density while simultaneously having high EER and ESEER values**
- **Compressor refrigeration system and free cooler optimally adapted to the respective application**
- **Compact design thanks to integrated recooling system, removing the need for cooling system components on the facade or on the roof**

Hybritemp 97 – efficiency-optimised

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight [3] (kg)	Cooling capacity [4] (kW)	ESEER [5]
97 04 01	3,700	890	1,650	1,470	33 - 48	5.5
97 05 01	3,700	1,050	1,650	2,070	45 - 64	5.5
97 06 01	4,340	730	2,130	2,490	56 - 81	5.5
97 10 01	4,500	1,050	2,130	3,250	74 - 106	5.4
97 13 01	4,660	1,370	2,130	4,390	118 - 168	5.5
97 16 01	4,820	1,690	2,130	5,240	148 - 217	5.5
97 19 01	4,820	2,010	2,130	6,110	172 - 247	5.2

Hybritemp 98 – performance-optimised

Unit type	Length (mm)	Width [1] (mm)	Height [2] (mm)	Weight [3] (kg)	Cooling capacity [4] (kW)	ESEER [5]
98 04 01	3,700	890	1,970	2,070	65 - 93	4.7
98 05 01	3,700	1,050	1,970	2,270	79 - 112	4.7
98 06 01	4,980	730	2,450	2,800	102 - 145	4.7
98 10 01	4,980	1,050	2,450	3,220	133 - 189	5.0
98 13 01	4,660	1,370	2,450	4,830	196 - 278	4.9
98 16 01	4,820	1,690	2,450	5,700	244 - 350	5.1
98 19 01	4,820	2,010	2,450	7,170	319 - 455	4.9

1 Door fitting assembly increases unit width by 25 mm each operating side
2 incl. 120 mm base frame
3 Empty weight, no operation weight
4 dependent on flow/return temperature and water flow rate, at OA = 32° C; 40% r.h.
5 at flow = 6° C

For service work, a clearance corresponding to dimension width is required on the operating side of the unit. If the width is smaller than one metre, please leave a clearance of one metre. Please comply with the dimensions for body size, air duct connections and electrical switch cabinet. Please seek approval of technical data and specifications prior to start of the planning process.

Library Herzogin Anna Amalia, Weimar

Multifunction Hall Osijek Croatia

THE MENERGA UNIT KEY

e.g. Resolair 64 12 01

Resolair	64	12	01
Name	Series	Installation size	Design

Series	Name	Function	Equipment	Design
11	Drysolair	Air drying	Heat pump, recuperator	
14	Frecolair	Ventilation/cooling	Free cooling, compressor refrigeration system	
19	ThermoCond	Indoor swimming pool air conditioning	Cross-counterflow heat exchanger	
23	ThermoCond		Cross-counterflow-cross heat exchanger	01 Indoor installation 91 Outdoor installation
29	ThermoCond		Cross-counterflow heat exchanger, heat pump	
38	ThermoCond		Full counterflow plate heat exchanger, volume flow reduction as required	
39	ThermoCond		Asymmetrical high-capacity heat exchanger, output-controlled heat pump, fresh water heater, volume flow reduction as required	
44	AquaCond	Heat recovery from waste water	Heat pump, counterflow coaxial recuperator, heat pump, automatic heat exchanger cleaning	0 WWHE: Cu FWHE: Cu 1 WWHE: Cu FWHE: Cu tin-plated 2 WWHE: Cu-Ni FWHE: Cu 3 WWHE: Cu-Ni FWHE: Cu tin-plated * WWHE=Waste Water Heat Exchanger * FWHE=Fresh Water Heat Exchanger
52	Trisolair	Comfort air conditioning, recuperative heat recovery	Cross-counterflow-cross heat exchanger, air volume flow rate up to 5,000 m^3/h	01 Indoor installation 91 Outdoor installation
54	Dosolair		Double plate heat exchanger, max. flow rates up to 52,200 m^3/h	
56	Adsolair		Double plate heat exchanger, adiabatic evaporative cooling, optimum flow rates up to 52,200 m^3/h	
58	Adsolair		Double plate heat exchanger, adiabatic evaporative cooling, compressor refrigeration system, max flow rates up to 52,800 m^3/h	
59	Trisolair		Cross-counterflow-cross heat exchanger, compressor refrigeration system, air volume flow rate up to 4,800 m^3/h	
62	Resolair	Comfort and process air conditioning, regenerative heat recovery	Heat accumulator module, max. flow rates up to 4,300 m^3/h	
64	Resolair		Heat accumulator module, max. flow rates up to 51,000 m^3/h	
65	Resolair		Heat accumulator module, air flow rates up to 40,000 m^3/h	
66	Resolair		Heat accumulator module, compressor refrigeration system, max. flow rates up to 4,300 m^3/h	
68	Resolair		Heat accumulator module, compressor refrigeration system, max. flow rates up to 51,000 m^3/h	
72	Sorpsolair	Sorption-based air conditioning	Double plate heat exchanger, adiabatic evaporative cooling, sorptive dehumidification, max. flow rates up to 14,900 m^3/h	
73	Sorpsolair		Double plate heat exchanger, adiabatic evaporative cooling, sorptive dehumidification, brine accumulator, max. flow rates up to 14,900 m^3/h	
75	Adcoolair	Recirculating air cooling	Free cooling, adiabatic evaporative cooling, compressor refrigeration system	
76	Adconair	Comfort air conditioning, recuperative heat recovery	Counterflow-plate heat exchanger, max. air volume flow up to 35,600 m^3/h, with adiabatic evaporative cooling, AdiabaticPro or refrigeration system	
97	Hybritemp	Cold water set	Indirect free cooling, adiabatic evaporative cooling, efficiency-optimised compressor refrigeration system	
98	Hybritemp		Free cooling, adiabatic evaporative cooling, efficiency-optimised compressor refrigeration system	

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