



BÖSCH OPTIMA COMPLETE



**NEW:**  
Now also available  
for outdoor  
installation



# bösch OPTIMA COMPLETE

Standardised ventilation units

# BÖSCH OPTIMA COMPLETE

## STANDARDISED COMPACT VENTILATION UNITS

bösch ventilation units **deliver, filter, heat and cool the supply air** in compliance with current energy and hygiene standards. The design and production of our high grade ventilation systems are based on over 40 years of know-how.

The compact dimensions of these units and the variety of models available allow versatile use in hotels, restaurants, offices, schools, public buildings and apartment blocks. They are supplied ready for connection with integral control unit, fully wired, and (from module size M1.00 upwards) always in sections. Optima complete is designed for indoor installation. The modules are easy to assemble thanks to their intelligent construction. Plug-in connections make the wiring extremely straightforward to complete.

High grade components, such as the aluminium countercurrent heat exchanger with over 80 % efficiency, high performance EC fans and energy saving compact filters with filter clamping device, ensure energy efficiency and sustainability. The units are fitted as standard with DHW reheating coils with air flow rates ranging from **800 to 8500 m³/h**. OPTIMA COMPLETE units also feature our tried and tested frameless **modul@** housing system made from foam sandwich panels. These panels are made of RAL 7035 coated galvanized sheet steel and the housing is thermally separated with service panels which can be opened on both sides or completely removed.

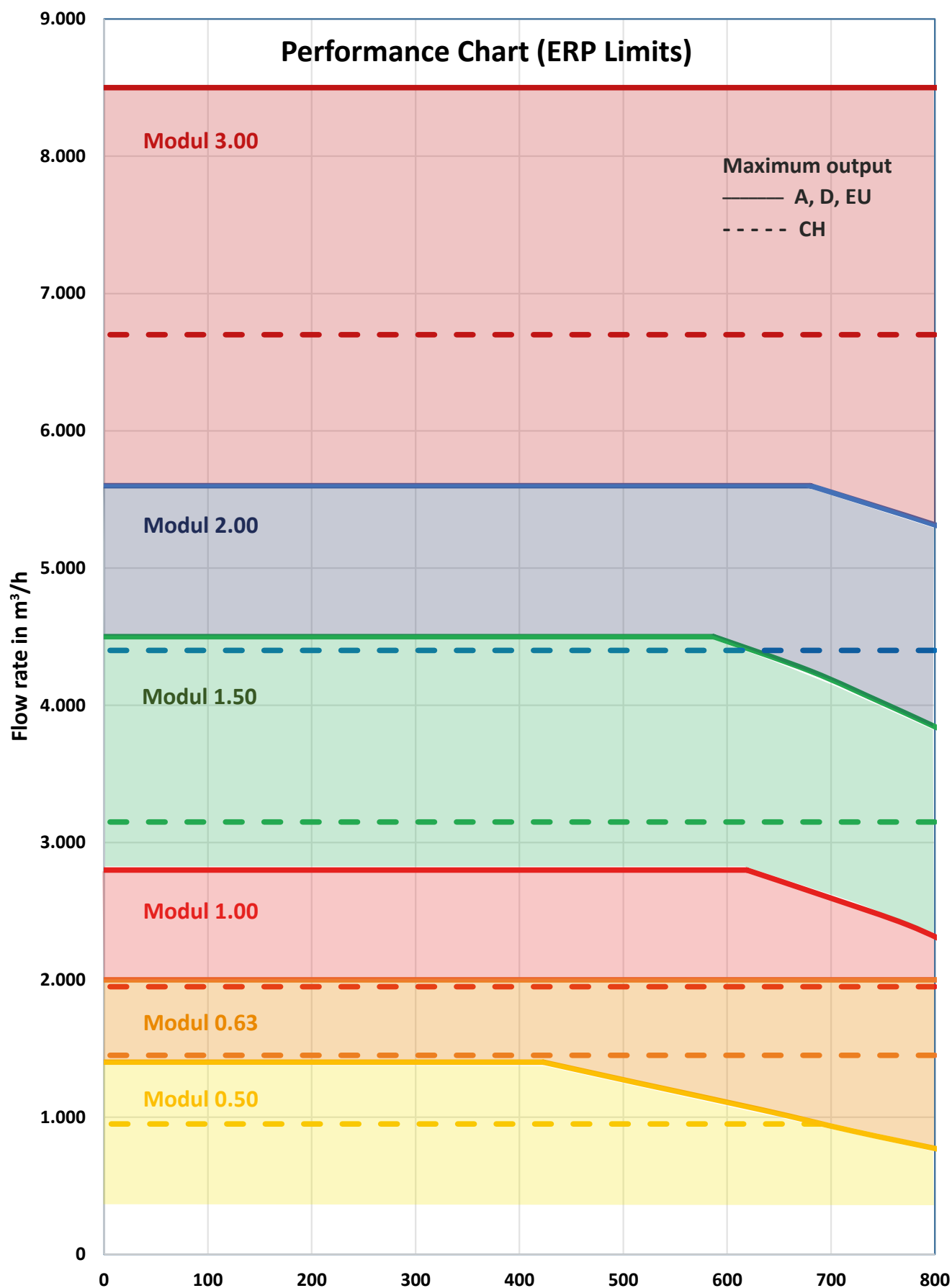
For heat recovery, an optional enthalpy heat exchanger is available which recovers a minimum of 60 % of the extract air humidity. In addition, auxiliary modules with cooling coils or direct evaporators and supply air filters (2nd filter stage) can be fitted by customers themselves on site. Users can also select from numerous control unit options.

### THE BENEFITS

- \* Compact dimensions
- \* Excellent housing properties (T2/TB2/L1/D1 to EN 1886)
- \* Horizontal (H) and vertical (W) versions
- \* Operating side options (left/right)
- \* High performance heat recovery with high efficiency and integral HR bypass
- \* Outdoor air and exhaust air dampers built in or surface mounted
- \* Efficient EC fans
- \* High grade compact filters for outdoor air, extract air and supply air (energy efficiency A+)
- \* Built-in heating coils including regulating valve
- \* Fully wired with integrated control unit, therefore ready for immediate use
- \* Additional system components (supply air filter, cooling coil, direct evaporator) allow flexible application
- \* Numerous control unit options
- \* Quick delivery times
- \* Online unit configurator at [myboesch.at](http://myboesch.at)

# BÖSCH OPTIMA COMPLETE

## OUTPUT SIZES AND APPLICATION RANGES



# BÖSCH OPTIMA COMPLETE

## A LOOK BEHIND THE SCENES



### Compact filter

Unique geometry, large filter surface area, low pressure drop, therefore long service life.



### Countercurrent heat exchanger

Aluminium countercurrent heat exchanger or enthalpy countercurrent heat exchanger with high efficiency and integrated HR bypass.



### Control unit

Plug & play – control panel with controllers mounted and wired.



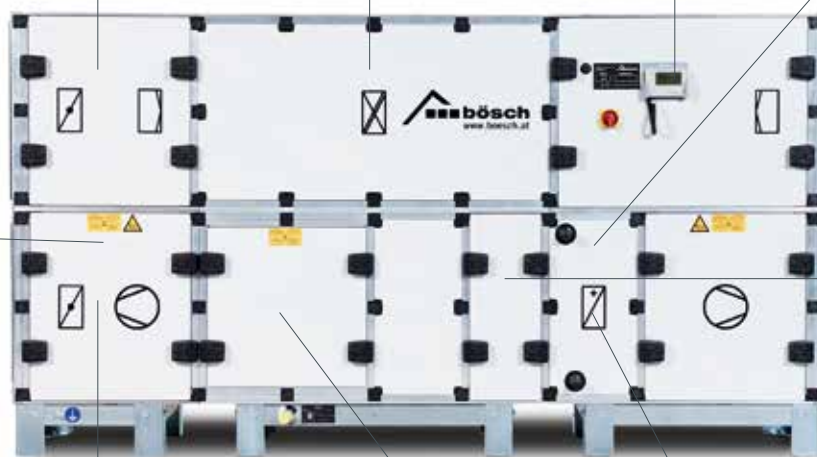
### EC fan

Energy efficient radial ventilator with direct drive and variable speed EC motor technology.



### Reheating coil

PWW – heating coil for reheating the supply air including regulating valve.



### Wiring ready to plug in

From module 1.00 upwards, segment joint with plug-in connection, easy installation – no factory service required.



### Integrated dampers

Inside in the horizontal version. External and insulated in the vertical version.



### modul@ housing

Low heat losses thanks to thermally separated housing, proven housing characteristics to EN 1886 (T2/TB2/L1/D1).



### Symbols

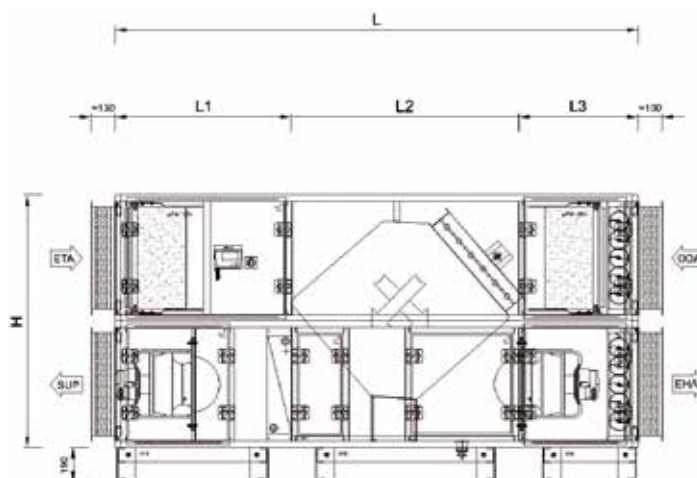
Easy to understand pictograms on the outside of the housing for service and maintenance orientation.



# BÖSCH OPTIMA COMPLETE

## SPECIFICATION - INDOOR UNITS

H version



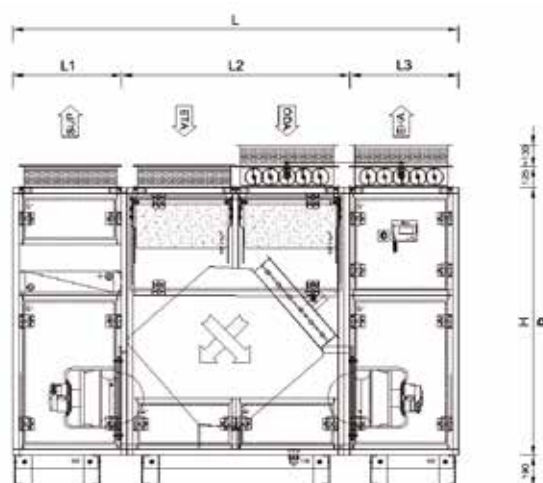
### Dimensions\*

Size	V <sub>Standard</sub>	V <sub>Enthalpy</sub>	$\Delta P_{Ext}$	Length	L2**	Width	Height*	$\eta_{HR}$	Heating capacity	Weight
Type	m <sup>3</sup> /h	m <sup>3</sup> /h	Pa	mm	mm	mm	mm	%	kW	kg
M1.00-H	2.800	1.900	450	2.860	1.277	690	1.380	82	17,1	500
M1.50-H	4.500	3.250	450	2.860	1.278	1.000	1.380	82	26,5	650
M2.00-H	5.600	4.500	450	2.860	1.278	1.310	1.380	82	34,7	770
M3.00-H	8.500	7.200	450	3.790	1.981	1.310	2.000	85	52,8	1.100

\*ohne An- bzw. Aufbauten ab M1.00 immer 3 Transporteinheiten zur Einbringung

\*\*größtes Einbringmaß

W version



### Dimensions\*

Size	V <sub>Standard</sub>	V <sub>Enthalpy</sub>	$\Delta P_{Ext}$	Length	L2**	Width	Height*	$\eta_{HR}$	Heating capacity	Weight
Typ	m <sup>3</sup> /h	m <sup>3</sup> /h	Pa	mm	mm	mm	mm	%	kW	kg
M0.50-W	1.400	1.200	400	1.620	1.620	690	1.310	81	9,8	270
M0.63-W	2.000	1.500	450	1.620	1.620	845	1.620	82	14,8	340
M1.00-W	2.800	1.900	450	2.690	1.380	690	1.620	82	17,1	480
M1.50-W	4.500	3.250	450	2.690	1.380	1.000	1.620	82	26,5	610
M2.00-W	5.600	4.500	450	2.690	1.380	1.310	1.620	82	34,7	720

\*without fittings and/or superstructural parts

\*\*maximum transport dimensions



# BÖSCH OPTIMA COMPLETE-A

## STANDARDISED UNITS FOR OUTDOOR INSTALLATION

The OPTIMA COMPLETE-A, a weatherproof air handling unit, is the consistent further development of the COMPLETE indoor units. Equipped with a weather hood and weather protection grille, it is suitable for outdoor installation. Integrated silencers, a built-in control system, a heating coil, or a change-over coil for heating and/or cooling operation make the OPTIMA COMPLETE a true all-in-one unit, which can be optionally expanded with a heat pump.

### Compact Filters – Energy efficiency A+

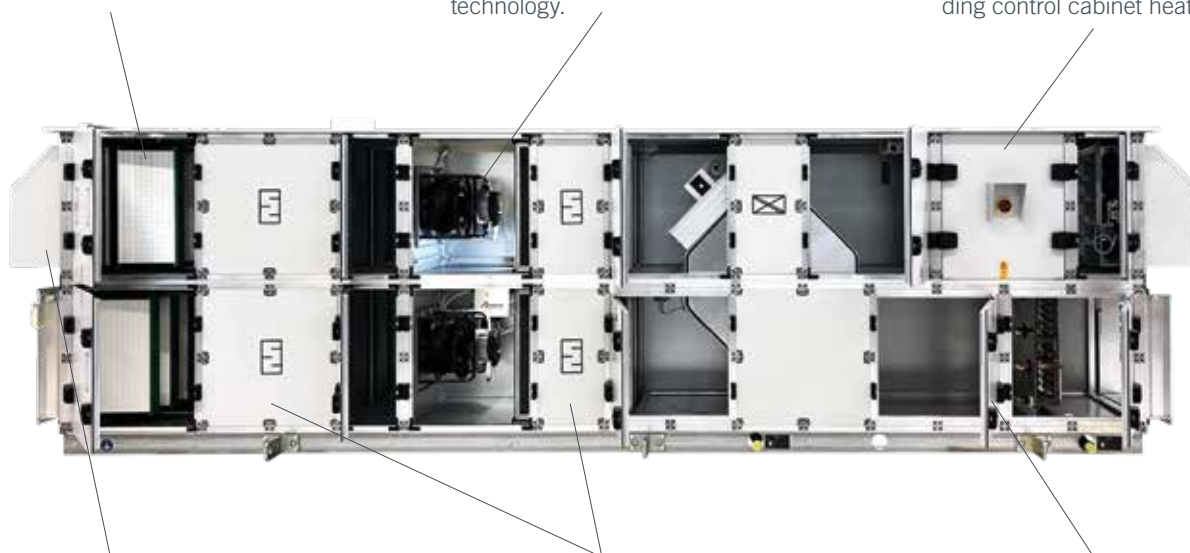
Unique geometry, large filter surface, low pressure losses, high dust holding capacity, and low operating costs.

### EC Fan

Energy efficient radial ventilator with direct drive and variable speed EC motor technology.

### On-board control system

Plug & Play – control cabinet with complete peripherals integrated into the unit, including control cabinet heating.



### Weather protection grille

Outdoor and exhaust air with WSG – positioned opposite each other to prevent air recirculation.

### Silencer baffles

Already integrated into the unit, positioned directly before and after the noise source to minimize sound emissions.

### Piping section with coil

An optional hot water coil (PWW) or change-over coil for heating or cooling is available. All variants come with the corresponding hydraulic piping..

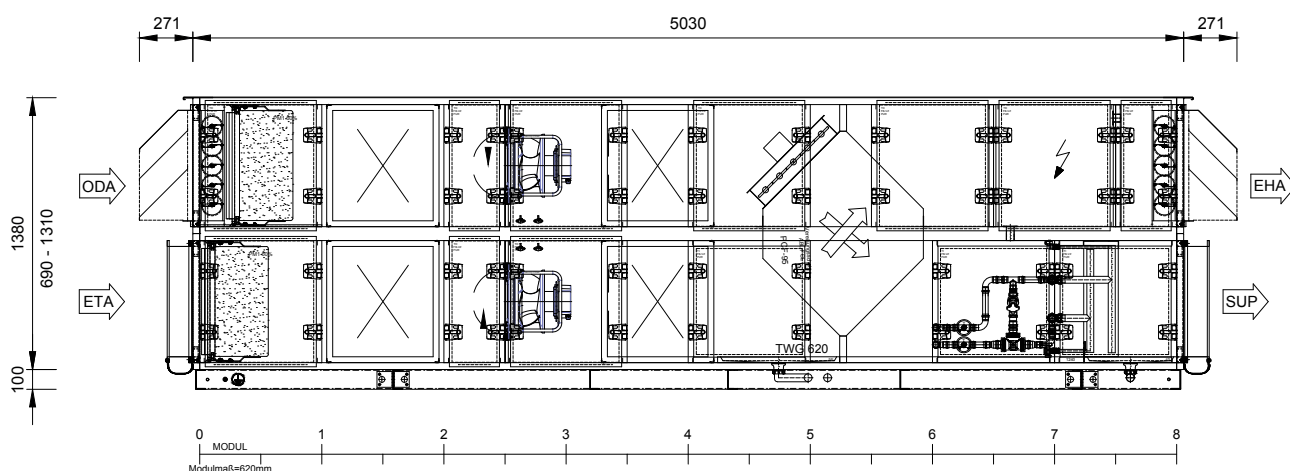
Internal shut-off dampers – no cold air ingress

The outdoor units are available in three air capacity sizes. They are always delivered as a single transport unit with a base frame. On-site, only appropriate structure-borne noise decoupling is required.



# BÖSCH OPTIMA COMPLETE-A

## SPECIFICATION - OUTDOOR UNITS



### COMPLETE outdoor unit

	M 1.00	M 1.50	M 2.00
Air volume flow (m³/h)	2.500	4.200	5.600
External pressure (Pa)	300	300	300
Filter efficiency class	A+	A+	A+
Heating capacity (kW) (SUP 22 °C)*	7,3	12,0	16,0
Cooling capacity (kW) (SUP 19 °C)**	11,1	18,7	25,0
Height (mm) incl. base frame	1.480	1.480	1.480
Width (mm) without heat pump	690	1.000	1.310
Length (mm) without attachments	5.030	5.030	5.030
Weight (kg)	780	1.050	1.240
Sound pressure level – housing at 5 m (dB(A))	44,4	41,7	44,7

\* PWW 35/30 °C

\*\* PKW 8/13 °C

These units also meet energy efficiency class A+ at the specified operating point (according to the certification program of the RLT manufacturers' association).



### PLEASE NOTE:

As this unit series is manufactured to order, delivery times may vary.

Your personal advisor can provide comprehensive information on technical specifications and customization options.

Feel free to get in touch to receive a solution tailored to your needs along with a corresponding offer.

# BÖSCH ECOHEAT

## SUSTAINABLE AND FUTURE-PROOF

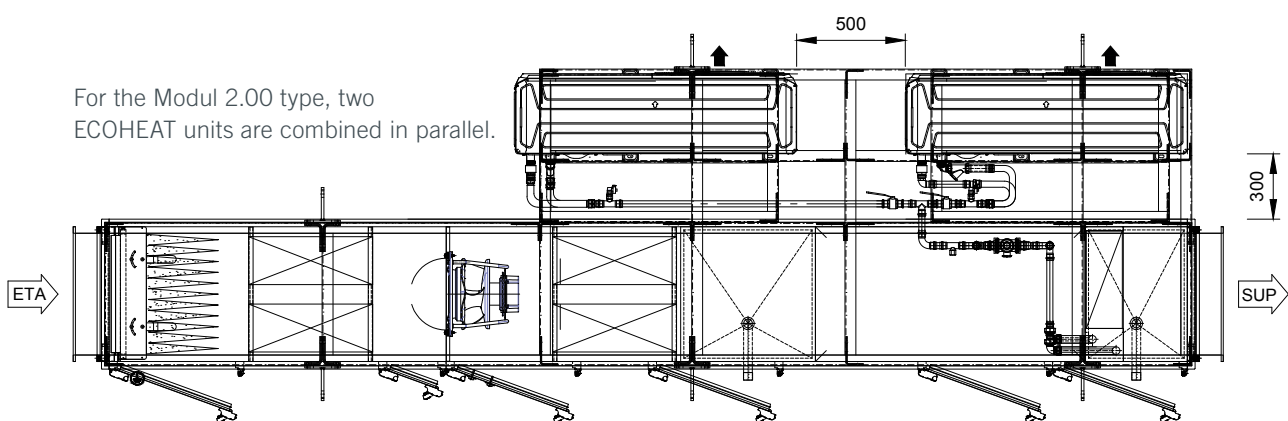
Compared to synthetic refrigerants, R290 (propane) is non-ozone-depleting and has a very low global warming potential (GWP) of 3. With regard to future restrictions and bans, propane is considered a future-proof refrigerant.

The OPTIMA COMPLETE unit can be combined exclusively with a heat pump. The advantages of the bösch ECO-HEAT make the combination with an OPTIMA COMPLETE outdoor installation particularly appealing. The natural refrigerant, very low refrigerant charge, wide operating limits, and compact dimensions enable a self-sufficient air handling center, independent of an on-site energy supply—only the power connection needs to be established.

The ECOHEAT heat pump is mounted together with the air handling unit on a base frame. In combination with a change-over coil, it is delivered pre-filled (glycol mixture) and fully piped hydraulically.



Note: The storage tank for the minimum water volume included in the scope of delivery is not shown.



### BENEFITS OF ECOHEAT:

- The ECOHEAT operates within a modulation range of 30 to 100 %.
- The natural refrigerant R290 impresses with its wide application range and future-proof characteristics. The integrated accessories are equally convincing!
- Features include a Modbus interface, flow monitor, circulation pump, automatic air vent, safety valve, expansion vessel, magnetic dirt separator, and a storage tank for the minimum water volume. Altogether, it provides a sustainable and ecological solution. Simply "complete."



# BÖSCH ECOHEAT

## SPECIFICATIONS – OUTDOOR INSTALLATION



Type		ECOHEAT6AC	ECOHEAT9AC	ECOHEAT 16AC
Voltage	V	230	230	400
Power consumption under maximum permissible conditions	kW	2,70	3,60	6,40
Full load current under maximum permissible conditions	A	12,0	16,0	9,5
Refrigerant		R290	R290	R290
Refrigerant charge	kg	0,7	1,1	1,25
Oil charge	l	0,6	0,83	1,1
GWP (AR4)		3	3	3
CO <sub>2</sub> equivalent	to	2,1	3,3	3,75

### Cooling at A32

Flow temperature	°C	8	8	8
Return temperature	°C	13	13	13
EER (Energy Efficiency Ratio)		3,89	3,52	2,88
Cooling capacity	kW	5,65	8,25	14,2

### Heating at A-7

Flow temperature	°C	35	35	35
Return temperature	°C	30	30	30
COP (Coefficient of Performance)		2,98	3,06	2,43
Heating capacity	kW	5,43	8,53	12,9

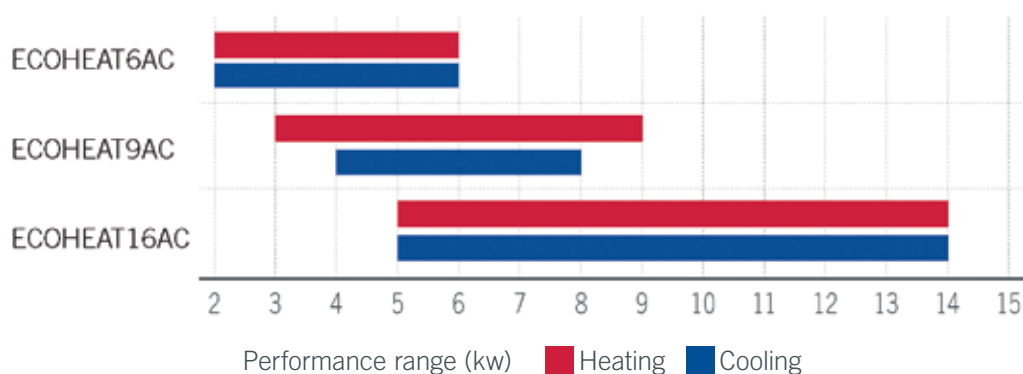
### Schallwerte

Sound pressure level (1 m distance)	dB(A)	44	48	56
Sound power level	dB(A)	56	60	69

### Sound levels

Glycol content	%	30	30	30
Integrated pump		Ja	Ja	Ja
Minimum water volume	l	30	70	70
Water flow rate cooling	l/s	0,30	0,44	0,75
Water flow rate cooling	m <sup>3</sup>	1,08	1,58	2,71
Pressure drop PWT in cooling mode	kPa	50,30	53,40	69,40
Water flow rate heating	l/s	0,29	0,46	0,69
Water flow rate heating	m <sup>3</sup>	1,04	1,64	2,47
Pressure drop PWT in heating mode	kPa	51,30	54,70	64,30

## PERFORMANCE RANGE



## UNIT OPTIONS



### SUPPLY AIR FILTER \*

Air filter section as supply air  
2nd filter stage

- Compact filter ePM1 80 %
- Filter clamping device
- Large access doors
- Includes pressure sensor for monitoring



### CW COOLING SECTION

AIR IN: 28 °C / 50 % rF /  
AIR OUT: 19 °C

Cooling coil section for recooling  
the supply air

- Cooling coil with 4 rows of tubes
- Condensate pan
- Access doors
- Includes supply air sensor



### DIRECT EVAPORATOR COOLING SECTION

AIR IN: 28 °C / 50 % rF /  
AIR OUT: 19 °C

Cooling coil section for recooling  
the supply air

- Direct evaporator with 4 rows of tubes (R410A)
- Condensate pan
- Access doors
- Includes supply air sensor

## UNIT ACCESSORIES



### FLEXIBLE FRAMED DUCT CONNECTOR

Elastic connector for structure-borne noise decoupling and expansion compensation (inclusive equipotential bonding for installation between ventilation unit and duct system).



### SPARE FILTER\*

Compact filter with unique geometry and low pressure drop thanks to large filter surface area, therefore long service life.



### LEVELLING FEET

4 levelling feet per assembly, incl. Sylomer SR450/12, travel 100 mm, for M1.00 and upwards 3 assemblies are required.



### SIPHON \*

Self-filling and self-closing siphon for draining ventilation units in the area of the cooling coils or other wet areas with negative pressure relative to the environment.

Auch erhältlich in UV-beständiger Ausführung.

\* can also be combined with COMPLETE-A

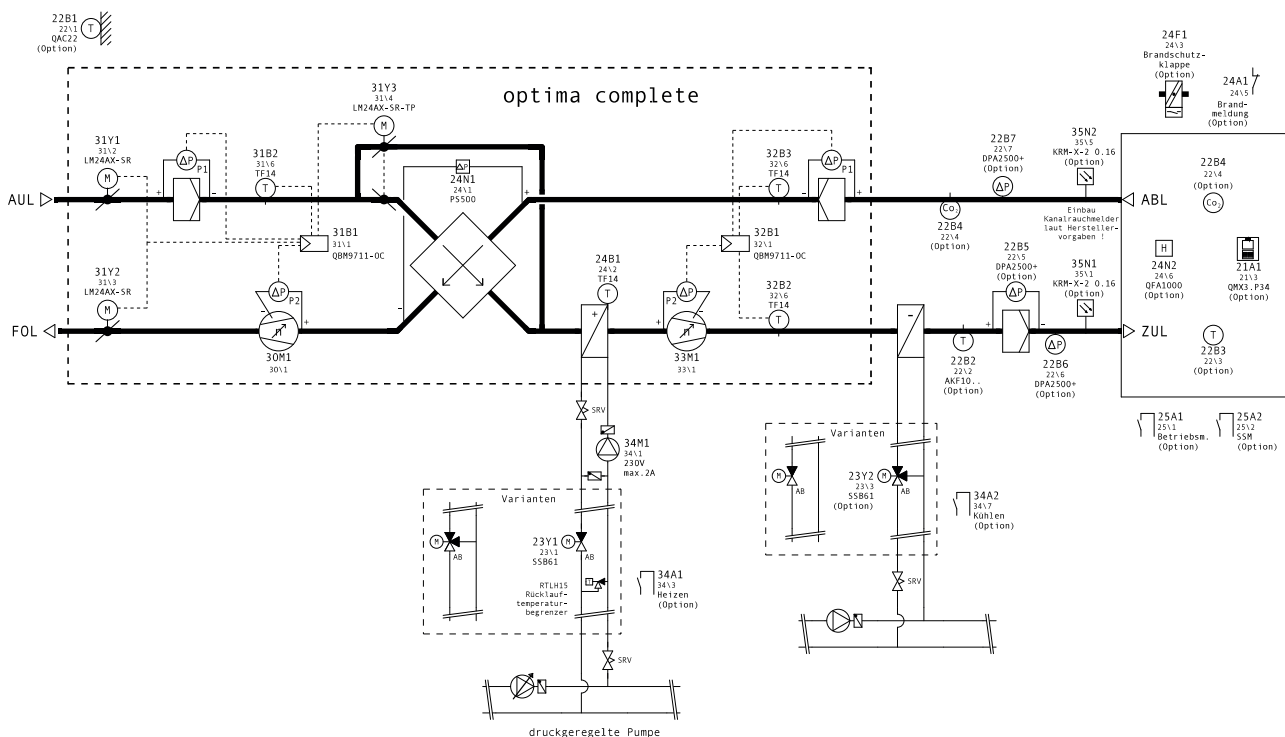
# CONTROL

- BACnet TCP/IP and ModBus (slave) for on board integration in higher ranking BMS systems
- Display of the current pressure drop of the filter stages in Pascal (Pa) on the control panel operating unit
- Display of the current flow rate of the supply air and extract air in m<sup>3</sup>/h on the control panel operating unit
- Display of numerous internal operating parameters and values with state of the art bus communication between the field devices (fans, damper drives and sensors)
- Compact control cabinet fully integrated in the unit, easy to maintain and service
- Electrical connections between the individual segments in the form of coded plug-in connections, no additional wiring or clamping points required
- Attractive remote controller allowing full control of the system and display of the current operating parameters
- Control and display via web browser

## CONTROL UNIT OPTIONS

- **KNX remote controller** with temperature sensor, backlit display and touch keys
- **Overnight ventilation** (Passive night cooling) consisting of weather and room sensors
- **Room temperature monitor** consisting of room sensor, without set value transducer
- **Room humidity monitor** consisting of room hygrosat, set value adjustment range 30-90 % RH, set value adjuster under the housing cover
- **Air quality sensor DUCT** consisting of CO<sub>2</sub> sensor, duct installation (extract air), 0-2000 ppm
- **Air quality sensor ROOM** consisting of CO<sub>2</sub> room sensor, installation in room, 0-2000 ppm
- **Duct pressure controller** consisting of 2 pressure sensors, duct installation, 0-2500 Pa
- **Smoke detector** for early detection of smouldering fires and fires with smoke emission, installation in ventilation duct, incl. extraction pipe
- All control options designed for indoor installation

## DIAGRAM OF AN OPTIMA COMPLETE INDOOR UNIT



# OPTIMA COMPLETE CONFIGURATOR

## QUICK AND EASY ACCESS TO THE FINISHED UNIT IN THE MYBOESCH PORTAL

Select the location, air volume, duct connection, operating/viewing side, and heat recovery option – and your desired unit is configured in no time. Then simply place your order with one click or download the offer.

**Available exclusively for OPTIMA COMPLETE indoor units.**

### SIMPLE –YOUR FINISHED UNIT IN JUST 5 STEPS!

Your myboesch.at login details:

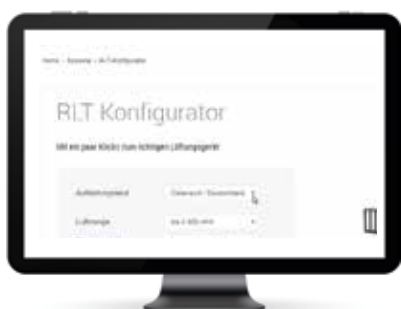
Email: \_\_\_\_\_

Password: \_\_\_\_\_

**REQUEST USER DATA  
NOW AT  
WWW.MYBOESCH.AT  
OR FROM YOUR  
SALESPERSON**

### Where can I find the configurator?

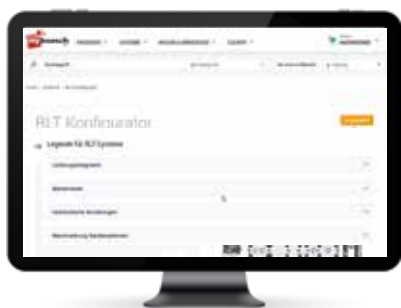
In myboesch.at under: Systems – AHU Configurator



As simple as that!



1. Selection of the basic configuration with just six features via drop-down menus.



2. Selection aids support you with all specifications.



3. Accessories and options easily selectable



4. Immediately available

- Diagram with the selected configuration
- Device drawing available for download
- Add selection to cart



5. Shopping cart

- Create offer
- Submit order



## BÖSCH SERVICES AT A GLANCE

### OUR SERVICE – YOUR ADVANTAGE



#### COMMISSIONING & TRAINING

Our staff will assist you with the proper commissioning of your new system. Once the system has been installed by the installer and wired by the electrician, our service technician will check that everything is correctly connected.

During the initial test run, the parameters are monitored and optimized. The system is then adjusted and regulated. We guide you through the commissioning process while providing you with professional training along the way.



#### TROUBLESHOOTING

The bösch customer service provides you with the best support in emergencies. A simple phone call to our service team is the first step toward resolving any issue. We are happy to assist you over the phone or be on-site in the shortest possible time.

Our goal is always to fix the problem right away, which is why our technicians always carry all essential spare parts in their vehicles.



#### MAINTENANCE AGREEMENT

Regular maintenance can prevent malfunctions and ensure optimal hygiene and energy efficiency. Routine filter replacements not only contribute significantly to your health but also ensure sustainable operation. Feel free to contact us – we will be happy to provide you with an offer. Timely detection and correction of issues can save you unnecessary trouble and costs!



#### RENOVATION CONSULTING

No one knows your system better than your service technician. They know when it's time to replace existing components to ensure smooth, continuous, and cost-effective operation.

You will receive neutral and non-binding advice. Together with our in-house renovation experts, we will find the optimal solution for your requirements and budget.



## A PARTNER YOU CAN TRUST

### AUSTRIA

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