water heater

ENERGY SAVING | LOW NOISE | 3 YEARS WARRANTY

BASIC FEATURES

Wide and variable range of highly efficient heating units designed for both wall and ceiling installation. They are suitable for use in the industrial premises, manufacturing hall, warehouses, sport facilities and other such buildings.

- 4 sizes with airflows of **1700 – 7000 m3/h**
- **5 different front covers** offering the choice of the best-suited one for a particular installation (Cut-out lamellas, Exhaust jets, Diffusor, Aluminium lamellas, Extension lamellas)
- Powerful heating performance ensured by **2row** or **3row** LPHW coils
- **EC** fans with IP54
- Compact metal sheet casing treated with a white powder coating **RAL9016**
- Easy installation and maintenance
- Air filter with a simple access (optional accessory)

The heating unit shall be installed indoor in a dry area with ambient temperatures ranging from +5 °C up to +35 °C and relative humidity of up to 80%. It is designed for blowing air free of rough dust, grease, chemical fumes, and other impurities. The IP rating of the electric system of the complete heating unit is IP 54. The heating unit is produced in standard colour RAL 9016.

Primary parameters

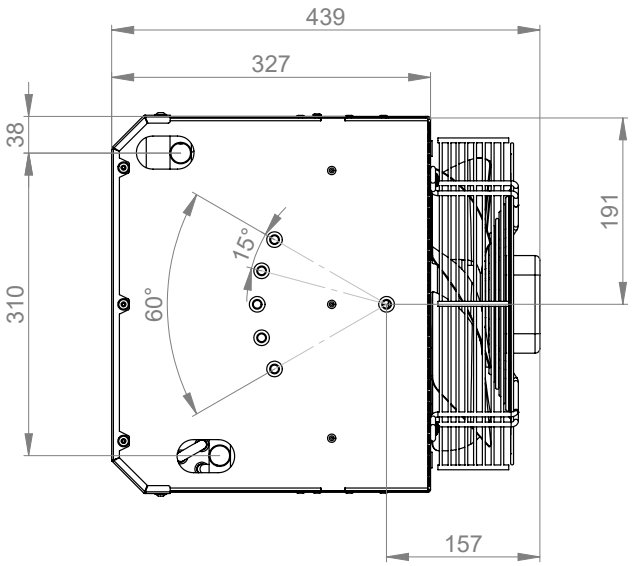
Type	Air flow [m³/h]	Voltage [V/Hz]	Current [A]	Power consumption [W]	Noise** [dB(A)]	Weight*** [kg]	Outer diameter of the water exchanger connection [mm]
OHSA3-100-V2	1900	230-50/60	1,7	210	51,4	17	22
OHSA3-200-V2	2600		1,5	180	45,6	22	22
OHSA3-400-V2	4700		1,4	320	51,4	35	28
OHSA3-600-V2	7000		2,6	630	58,4	46	28
OHSA3-100-V3	1700	230-50/60	1,7	210	52,6	18	22
OHSA3-200-V3	2250		1,5	180	45,8	24	22
OHSA3-400-V3	4300		1,4	320	50,6	38	28
OHSA3-600-V3	6500		2,6	630	58,2	50	28

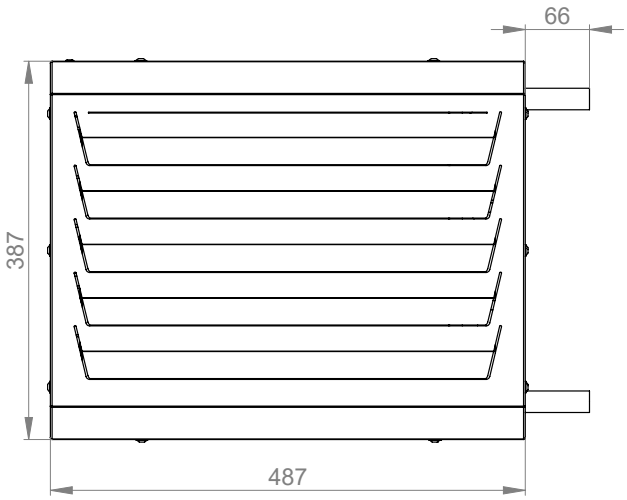
* The airflow reach is equal to the distance where the air speed is 0,5m/s
** Sound pressure measured 5m from the heating unit outlet (Q=2)
*** Weight with basic cover and without water in LPHW coil.

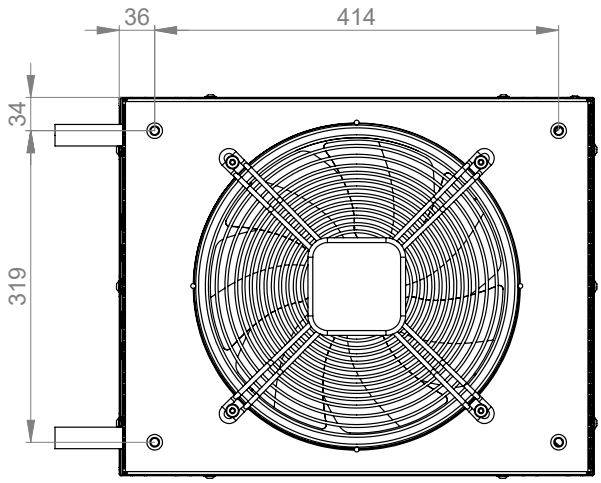
PRIMARY PARAMETERS

Dimensions of the *SAVANA* unit

OHSA3-100

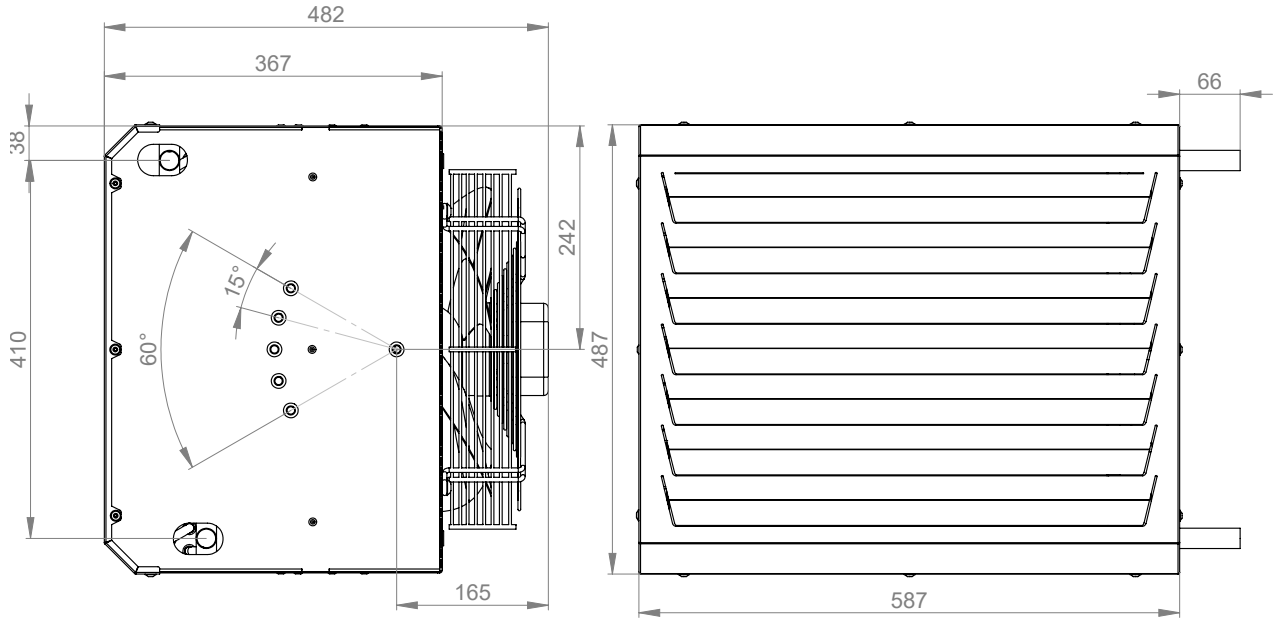


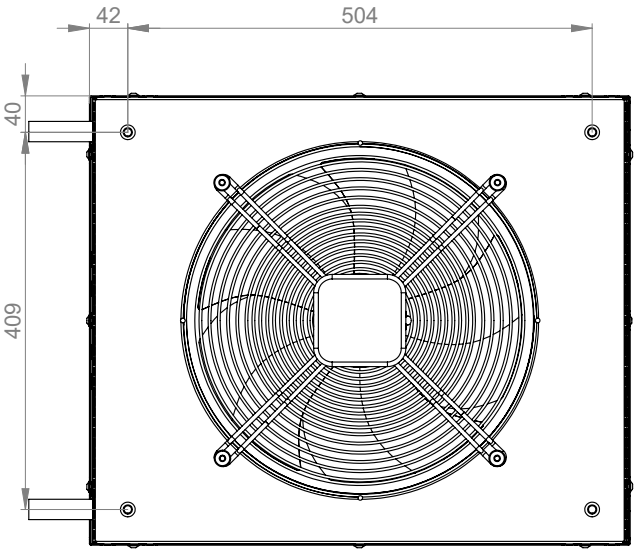




Dimensions of the *SAVANA* unit

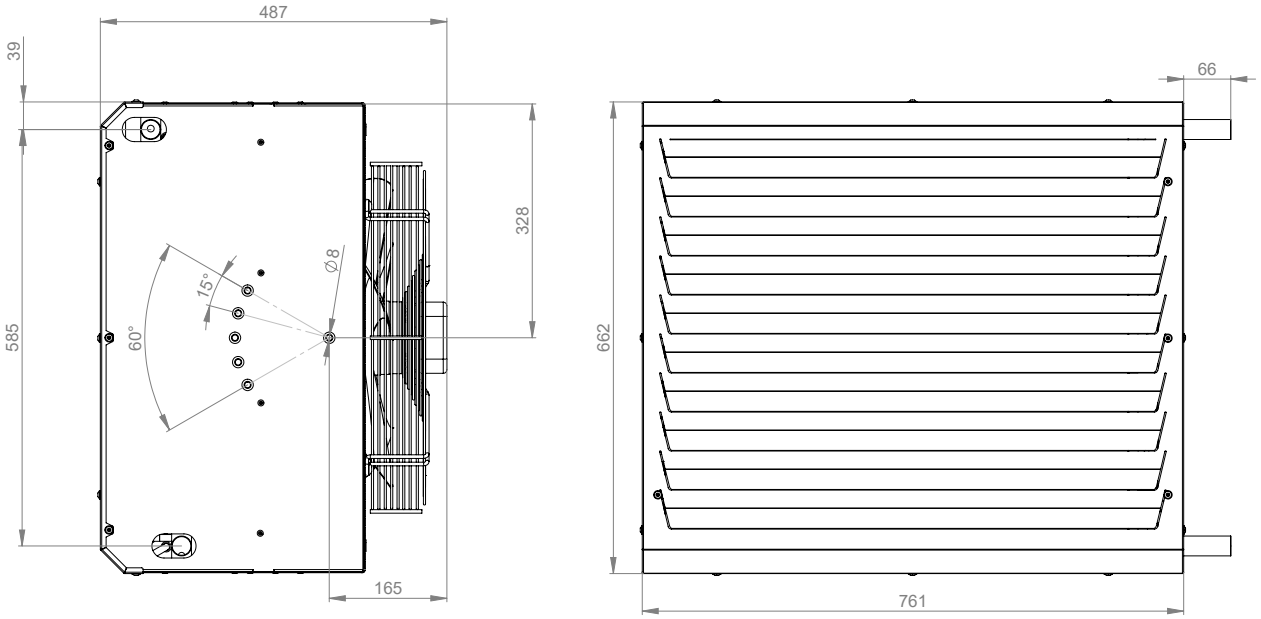
OHSA3-200

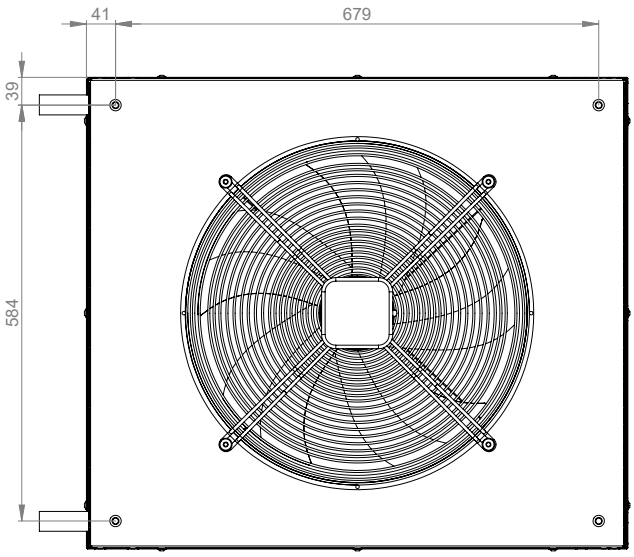




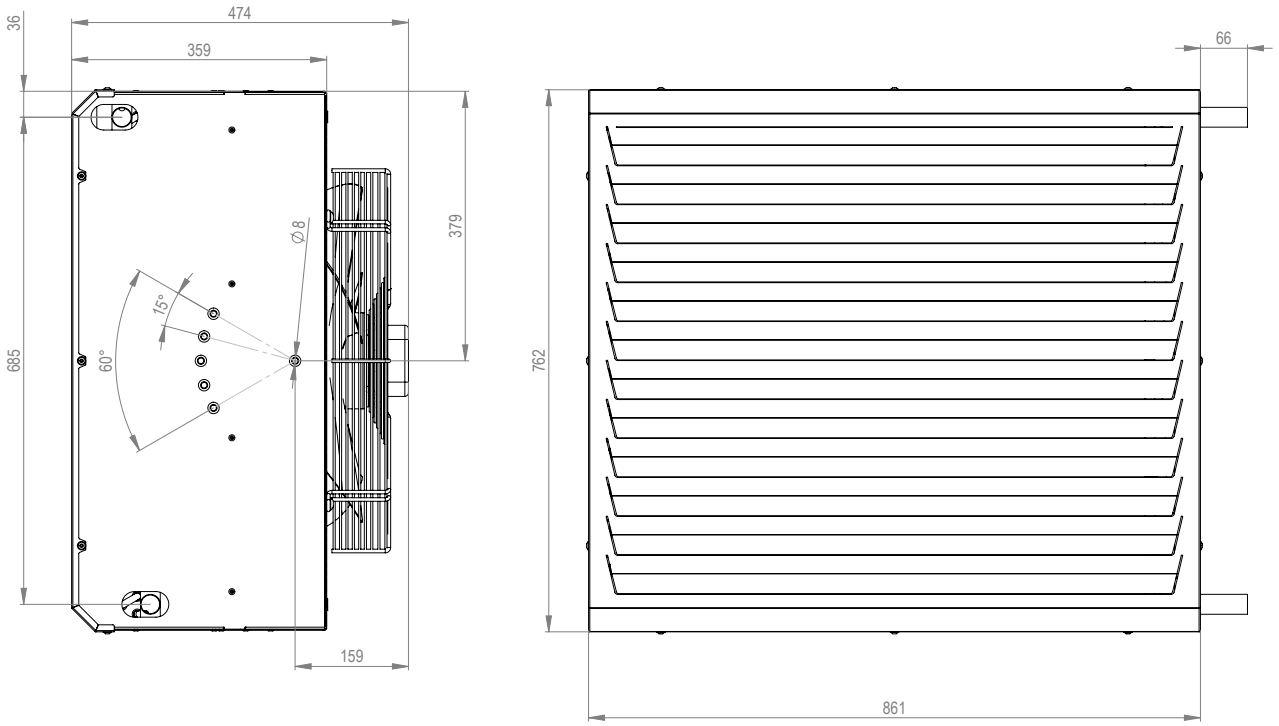
Dimensions of the *SAVANA* unit

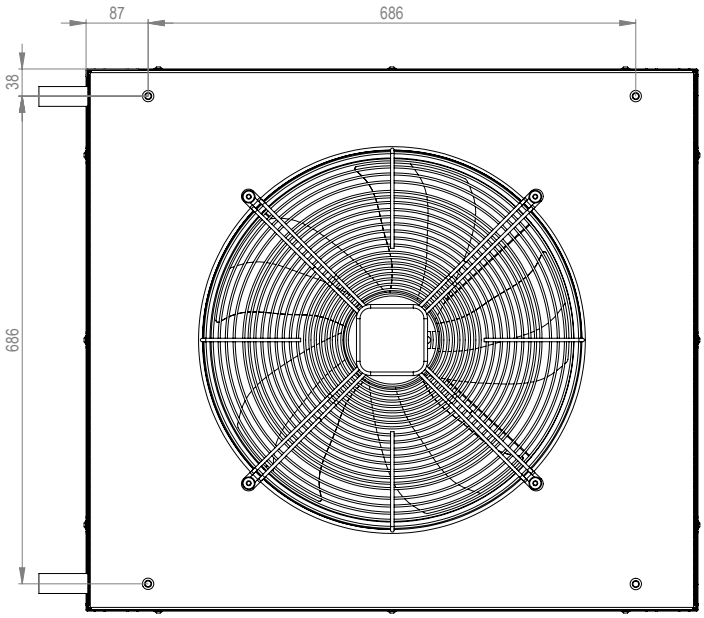
OHSA3-400





OHSA3-600





Characteristics for different voltage of EC fans

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-100-V2	1,5	300	230	0,10	5	13,2
	2	350		0,10	5	19,1
	4	800		0,22	25	33,3
	6	1200		0,55	60	42,7
	8	1600		1,20	140	48,7
	10	1900		1,70	210	51,4

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-200-V2	1,5	650	230	0,10	7	13,8
	2	780		0,11	10	17,3
	4	1300		0,30	30	29,5
	6	1800		0,60	70	37,5
	8	2350		1,20	140	43,9
	10	2600		1,50	180	45,6

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-400-V2	1,5	1200	230	0,17	15	18,7
	2	1400		0,18	20	20,1
	4	2250		0,27	50	33,2
	6	3100		0,50	110	40,8
	8	4000		0,90	210	47,4
	10	4700		1,40	320	51,4

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-600-V2	1,5	1700	230	0,23	25	24,8
	2	2000		0,25	30	28,3
	4	3300		0,45	90	39,5
	6	4600		0,85	200	48,4
	8	6000		1,60	390	54,3
	10	7000		2,60	630	58,4

The LPHW coil are designed for the maximum operating water temperature of +110 °C and maximum operating pressure of 1.6 MPa.

Characteristics for different voltage of EC fans

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-100-V3	1,5	250	230	0,10	5	12,3
	2	320		0,10	5	17,7
	4	650		0,20	20	33,7
	6	1000		0,50	55	42,8
	8	1400		1,10	130	49,5
	10	1700		1,70	210	52,6

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-200-V3	1,5	550	230	0,10	7	14,6
	2	750		0,11	10	18,5
	4	1170		0,30	30	30,0
	6	1600		0,62	70	38,1
	8	2100		0,12	140	44,2
	10	2250		1,50	180	45,8

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-400-V3	1,5	1050	230	0,17	15	26,3
	2	1250		0,18	20	21,6
	4	2050		0,28	50	32,3
	6	2850		0,50	110	40,5
	8	3650		0,95	210	47,1
	10	4300		1,40	320	50,6

Type	Control voltage [V]	Airflow [m³/h]	Voltage [V]	Current [A]	Power consumption [W]	LP(A) 5m [db(A)]
OHSA3-600-V3	1,5	1550	230	0,23	25	22,8
	2	1850		0,25	30	27,2
	4	3100		0,45	90	40,2
	6	4300		0,90	210	48,8
	8	5600		1,75	410	54,6
	10	6500		2,60	630	58,2

The LPHW coil are designed for the maximum operating water temperature of +110 °C and maximum operating pressure of 1.6 MPa.

Basic technical parameters of LPHW coils

2-row LPHW coil

Air flow [m³/h]		OHSA3-100-V2 1900				OHSA3-200-V2 2600				OHSA3-400-V2 4700				OHSA3-600-V2 7000			
Water exchanger temperature gradient [°C]	Inlet air temperature [°C]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]
90/70	5	23,1	41,1	1,03	22,4	34,4	44,3	1,53	30,1	62,8	44,7	2,79	23,2	89,6	43,0	3,98	31,9
	10	21,6	43,7	0,96	19,7	32,1	46,7	1,43	26,5	58,6	47,0	2,60	20,4	83,6	45,4	3,71	28,0
	15	20,0	46,2	0,89	17,2	29,8	49,0	1,32	23,1	54,4	49,3	2,42	17,8	77,6	47,9	3,45	24,4
80/60	5	19,6	35,7	0,87	16,9	29,3	38,5	1,29	22,8	53,5	38,8	2,36	17,5	76,3	37,4	3,37	24,0
	10	18,0	38,2	0,80	14,5	27,0	40,8	1,19	19,6	49,3	41,1	2,18	15,0	70,3	39,8	3,11	20,6
	15	16,5	40,7	0,73	12,2	24,7	43,1	1,09	16,6	45,0	43,4	1,99	12,7	64,3	42,2	2,84	17,5
70/50	5	16,1	30,2	0,71	12,0	24,2	32,7	1,07	16,4	44,2	32,9	1,94	12,5	63,0	31,7	2,77	17,1
	10	14,5	32,7	0,64	9,9	21,9	35,0	0,96	13,6	39,9	35,2	1,75	10,4	56,9	34,1	2,50	14,2
	15	12,9	35,2	0,57	8,0	19,6	37,3	0,86	11,1	35,6	37,4	1,56	8,4	50,8	36,5	2,23	11,5
60/40	5	12,6	24,7	0,55	7,8	19,1	26,8	0,84	10,8	34,7	26,9	1,52	8,2	49,6	26,1	2,17	11,2
	10	11,0	27,2	0,48	6,1	16,7	29,1	0,73	8,5	30,4	29,2	1,33	6,4	43,5	28,4	1,90	8,8
	15	9,4	29,6	0,41	4,5	14,4	31,4	0,63	6,4	26,0	31,4	1,14	4,8	37,2	30,8	1,63	6,6
45/35	5	10,3	21,0	0,89	19,7	15,4	22,6	1,34	26,9	28,1	22,7	2,44	20,5	40,1	22,0	3,49	28,0
	10	8,7	23,5	0,75	14,5	13,1	24,9	1,14	19,9	23,8	25,0	2,07	15,0	34,0	24,4	2,95	20,6
	15	7,1	26,0	0,61	9,9	10,7	27,2	0,93	13,7	19,4	27,2	1,69	10,4	27,8	26,8	2,41	14,2

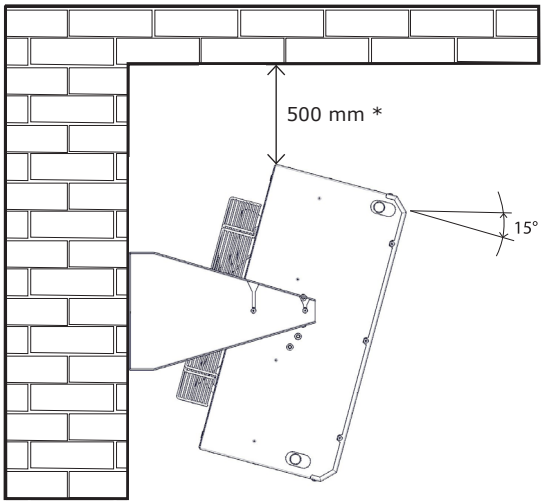
3-row LPHW coil

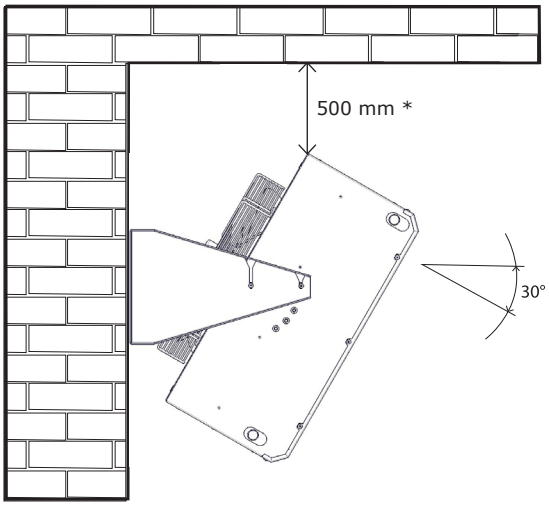
Air flow [m³/h]		OHSA3-100-V3 1700				OHSA3-200-V3 2250				OHSA3-400-V3 4300				OHSA3-600-V3 6500			
Water exchanger temperature gradient [°C]	Inlet air temperature [°C]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]	Heating output [kW]	Output air temp. [°C]	Water flow rate [m³/h]	Water pressure loss [kPa]
90/70	5	28,7	55,1	1,27	21,6	40,7	58,8	1,81	21,1	78,3	59,1	3,48	22,3	113,8	57,0	5,05	31,7
	10	26,8	56,7	1,19	19,1	38,1	60,2	1,69	18,6	73,1	60,5	3,25	19,6	106,4	58,6	4,73	28,0
	15	24,8	58,3	1,10	16,6	35,4	61,6	1,57	16,2	68,0	61,9	3,02	17,2	98,9	60,1	4,39	24,4
80/60	5	24,5	47,7	1,08	16,5	34,9	51,0	1,54	16,1	67,0	51,3	2,96	17,0	97,5	49,6	4,31	24,1
	10	22,6	49,4	1,00	14,2	32,2	52,4	1,42	13,9	61,9	52,7	2,73	14,6	90,0	51,1	3,98	20,8
	15	20,6	51,0	0,91	12,0	29,5	53,8	1,30	11,8	56,7	54,1	2,50	12,4	82,4	52,6	3,64	17,6
70/50	5	20,2	40,4	0,89	11,9	29,0	43,3	1,27	11,6	55,7	43,5	2,45	12,3	81,0	42,0	3,56	17,3
	10	18,3	42,0	0,81	9,9	26,2	44,6	1,15	9,7	50,5	44,9	2,22	10,2	73,4	43,5	3,23	14,5
	15	16,4	43,5	0,72	8,1	23,5	45,9	1,03	7,9	45,2	46,2	1,99	8,3	65,7	45,0	2,89	11,8
60/40	5	16,0	33,0	0,70	7,9	23,0	35,3	1,01	7,8	44,3	35,6	1,94	8,2	64,4	34,4	2,82	11,5
	10	14,0	34,5	0,61	6,2	20,2	36,7	0,88	6,1	39,0	36,9	1,71	6,5	56,7	35,9	2,48	9,1
	15	12,0	36,0	0,53	4,7	17,4	37,9	0,76	4,7	33,6	38,2	1,47	4,9	48,8	37,3	2,14	6,9
45/35	5	12,8	27,4	1,12	19,4	18,3	29,2	1,59	18,9	35,3	29,4	3,07	19,9	51,3	28,4	4,46	28,1
	10	10,9	29,0	0,95	14,3	15,6	30,5	1,36	14,0	30,0	30,7	2,61	14,8	43,6	29,9	3,79	20,8
	15	8,9	30,5	0,78	10,0	12,8	31,9	1,11	9,8	24,7	32,0	2,15	10,3	35,9	31,4	3,12	14,5

INSTALLATION AND ASSEMBLY

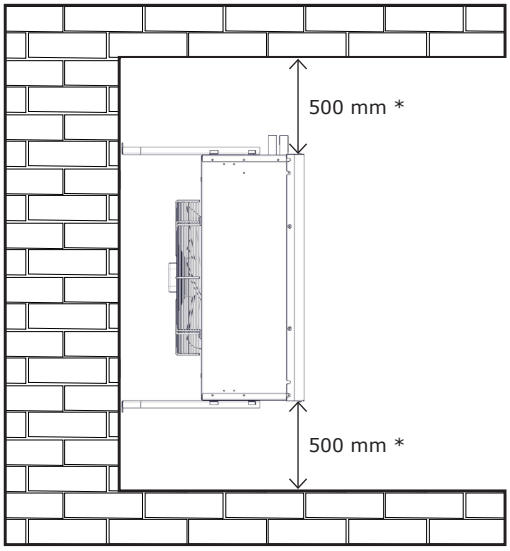
The heating unit can be wall-mounted and ceiling-mounted.
An installation bracket is possible to order as accessories. For ceiling installation can be also used threaded bars.

Wall-mounting (side view)

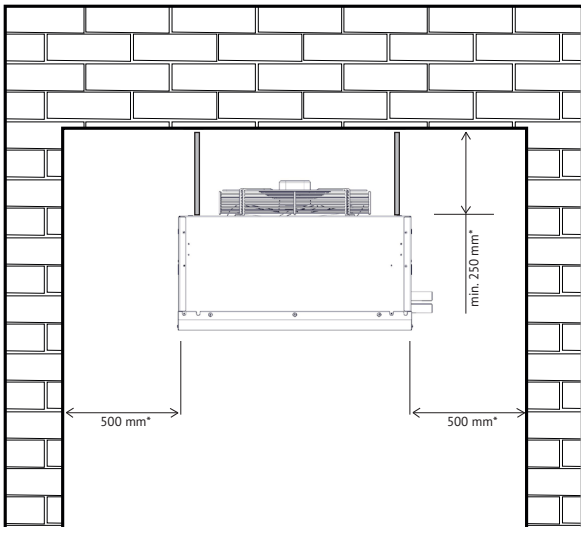




Wall-mounting (top view)



Ceiling- mounting (side view)



* Recommended distance for easy access and installation.

CONTROL

The ***SAVANA*** air heaters are delivered without an integrated control system. Below see recommended control options:

AirGENIO IC PRIME control unit

The AirGENIO **IC PRIME** control unit is designed primarily for controlling 2VV industrial air curtains and fan heaters.

This control type is an advanced, yet user-friendly solution designed to optimize climate separation with cutting-edge technology. With minimal maintenance needs, AirGENIO PRIME provides a smart, reliable, and energy-efficient approach to air curtain control, enhancing both performance and convenience.

KEY TO CODING

ICPR1-M-ECX-XX-VF-0 A0

- **A0** - 2VV version
- **0** - Control box in standard colour
- **S0** - Ambient version
  E2 - Electic heating - 2steps
  VF - Water heating
- **XX** - Not specified (EC fans)
  04 - Max.load 4A (AC fans)
  07 - Max.load 7A (AC fans)
  16 - Max. load 16A (AC fans)
- **ECX** - For EC fans
  AC5 - For AC fans 5speeds
- **M** - Master
  S - Subunit
- **ICPR1 -** IC PRIME Control unit 1st generation

More details can be found on the relevant page in this catalog.

AirGENIO BASIC EC controller

AGBA1-M-ECX-XX-V1-0A0

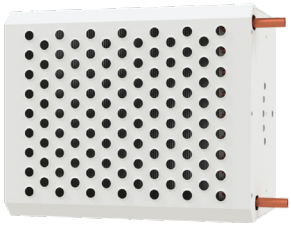
AirGENIO BASIC EC controller is designed primarily for manual control of industrial air curtains and air heaters with water or electric heating. In addition, the unit may be used for manual control of devices comprising a voltage controlled EC fans.

Speed controller type	OHSA3-100	OHSA3-200	OHSA3-400	OHSA3-600
AGBA1-M	10	10	10	10

OPTIONAL ACCESSORIES

Face cover

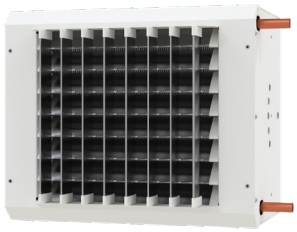
OHSA3-XXX-FC**G**-0A0



OHSA3-XXX-FC**D**-0A0

OHSA3-XXX-FC**F**-0A0

OHSA3-XXX-FC**A**-0A0



OHSA3-XXX-FC**A**-0A0 + OHSA3-XXX-FC**N**-0A0

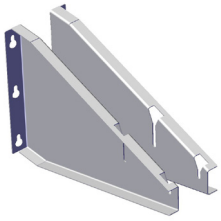
OHSA3-600- FCG- 0 A 0

0	reserve
A	Stadard version
FCG	Cut-out lamellas Face Cover
FCA	Alluminium lamellas Face Cover
FCN	Vertical ext. aluminium lamellas Face Cover
FCD	Exhaust jets Face cover
FCF	Diffusor Face Cover
100	Size - Nominal airflow 1000m³/h
200	Size - Nominal airflow 2000m³/h
400	Size - Nominal airflow 4000m³/h
600	Size - Nominal airflow 6000m³/h
OHSA3	Accesories for **SAVANA 3**

OPTIONAL ACCESSORIES

More details can be found on the relevant page in this catalog.

Mounting Bracket
OHSA3-xxx-HOL-0A0
Allow to mount unit on the wall at 3 different angles: 0°, 15°, 30°
Universal for all SAVANA unit sizes



ZV2-230-xx
2-way O/C valve with 230V actuator

ZV3-230-xx
3-way O/C valve with 230V actuator

ZV2-024-xx
2-way valve with 24DCV actuator, 0-10V DC control signal

ZV3-024-xx
3-way valve with 24DCV actuator, 0-10V DC control signal

OPTIONAL ACCESSORIES

More details can be found on the relevant page in this catalog.

RT-3-xx
3-way O/C valve with 230V actuator, not to be used with SC-C-EC control

Thermostatic valve
TV-1-1/1

Mixing node
SMU2-xx-xx

Flexible connection hoses
OH-xxx

Room thermostat
TER-P

Threaded bar
The unit is suspended using four threaded bars.
ZTZ-M8-1,0 – threaded bar, M8 thread, 1m length, suitable for all types of heating units.

Spare filter for SAVANA products

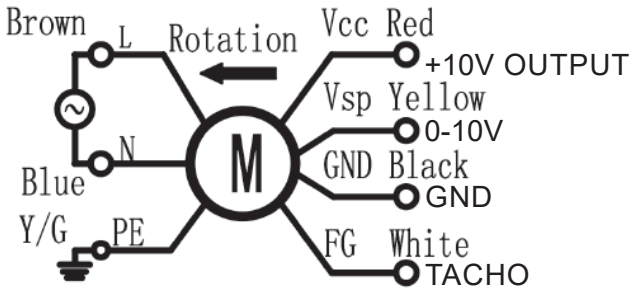
FI-PYTEL-KRUH-G2-SAV-1

OHSA3-100	Output series (1000)
OHSA3-200	Output series (2000)
OHSA3-400	Output series (4000)
OHSA3-600	Output series (6000)
G2	Filter type Coarse 40% (only G2)
FI-PYTEL-KRUH	Filter

WIRING DIAGRAMS

All wiring diagrams provided in the technical catalog are indicative only. When assembling the product, observe strictly the nameplate ratings as well as directions and diagrams affixed directly to the product or enclosed to the product.

OHSA3



Wiring diagrams for the control system are provided in the manual.

KEY TO CODING

OHSA3- 600 XX00 E 00-X V2 X - 0 B 0

0	reserve
B	**A** - Air heater with face cover G (cut-out lamellas) **B** - Air heater without face cover
0	0 - Standard RAL (9016) 9 - Atyp RAL
V2 **V3**	V2 - 2-row LPHW coil V2 - 3-row LPHW coil (not available for INOX)
E	E - EC fans
100	100 - Nominal airflow 1000m3/h 200 - Nominal airflow 2000m3/h 400 - Nominal airflow 4000m3/h 600 - Nominal airflow 6000m3/h
OHSA3	SAVANA air heater V3d generation