



UVERS W

UNIT HEATERS WITH COOLING FUNCTION

APPLICATION

UVERS W unit heaters are designed to be fed with hot water from traditional high and low temperature heat sources such as heat pumps or condensing boilers, and can also be fed with chilled water to provide a cooling function. The unit heaters are designed for heating and cooling areas such as:

- > factory floors
- > workshops
- > warehouses
- > showrooms
- > sports and entertainment halls etc.

DESCRIPTION

UVERS W unit heaters are available in two sizes.

The unit heater consists of:

- > axial fan with AC or EC single-phase motor;
- > high-efficiency 2 or 3-row fin coil (the unit heaters with cooling function are only available with 3-row coils);
- > casing made of coated steel sheet;
- > air outlet grille with adjustable blades allowing to adjust the direction of discharge air.

Accessories:

- > specially designed wall mounting bracket that allows the position of the unit heater to be adjusted at an angle of $\pm 45^\circ$ in the horizontal plane and at an angle of 25° in the vertical plane;
- > drip tray for collecting the condensate generated during the cooling process.

OPERATING CONDITIONS

UVERS W units can be fed with water at a maximum temperature of up to 150°C and an operating pressure of up to 1.5MPa

DESIGNATIONS

Unit heater UVERS W-1-III-EC

Size	1; 2
Number of coil rows	II; III
Fan type	AC; EC

DESIGNATION OF ACCESSORIES:

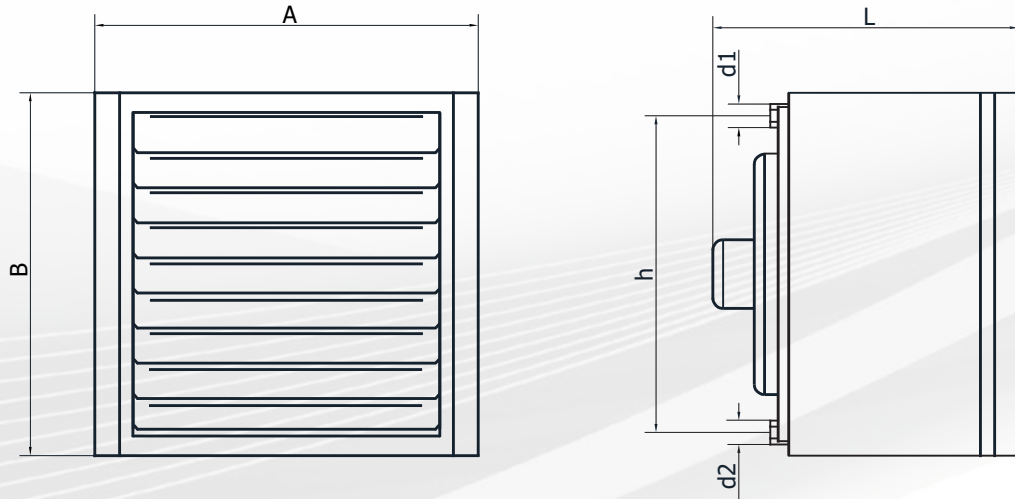
Wall bracket KM-UVERS-1

Size 1;2

Condensate drip tray TC-UVERS-2

Size 1;2

TECHNICAL DATA



Unit heater size		UVERS W-1		UVERS W-2	
A (mm)		556		677	
B (mm)		527		686	
h (mm)		460		620	
Number of coil rows		II	III	II	III
d ₁ d ₂		3/4" 3/4"	3/4" 3/4"	3/4" 3/4"	1" 1"
Volume (dm ³)		1.5	2.0	2.4	3.2
AC	L (mm)	445		461	
	weight (kg)	26	28	41	47
EC	L (mm)	350		423	
	weight (kg)	24	26	46	52

AC fans parameters		
Supply voltage (V)	230	230
Motor power (W)	140	250
Current (A)	0.65	1.15
Speed (rpm)	1420	1350
IP	54	54
Operating temperature	60°C	60°C

EC fans parameters		
Supply voltage (V)	230	230
Motor power (W)	140	332
Current (A)	1.45	2.16
Speed (rpm)	1660	1300
IP	54	54
Operating temperature	40°C	70°C

Noise level (dB(A))	Noise level			
	UVERS W-1-AC	UVERS W-1-EC	UVERS W-2-AC	UVERS W-2-EC
	53	56	62	64

Noise level — sound pressure level taking into account the sound absorption in the room A=100m² and directivity factor Q=2 at a distance of 5 m.

Heating capacity

Unit size		UVERS W-1					
Motor type		AC					
Air flow (m ³ /h)		2050			1900		
Number of coil rows		II			III		
Water parameters (°C)	Air inlet temperature (°C)	Heating capacity (kW), air outlet temperature (°C) and water pressure drop (kPa)					
		kW	°C	kPa	kW	°C	kPa
90/70	5	25.1	39	10.4	31.3	51	8.7
	10	23.6	42	8.8	30.2	52	8.2
	16	20.6	45	7.1	25.8	56	5.9
	20	19.0	47	6.0	23.8	57	5.6
80/60	5	21.2	34	7.5	26.7	44	6.3
	10	19.2	37	6.1	25.4	46	5.7
	16	16.9	40	4.7	21.3	49	4.1
	20	15.3	42	3.9	19.4	50	3.4
70/50	5	17.7	29	5.1	22.1	38	4.3
	10	15.5	31	4.1	20.6	39	3.8
	16	13.3	35	2.9	16.9	42	2.5
	20	11.8	37	2.3	15.2	43	2.1
60/40	5	13.7	24	3.1	17.6	31	2.8
	10	11.9	27	2.3	16.0	32	2.3
	16	9.8	30	1.6	12.5	35	1.4
	20	8.3	32	1.2	10.7	37	1.2
50/30	5	10.2	19	1.7	13.1	24	1.5
	10	8.4	22	1.2	11.4	26	1.2
	16	6.3	25	0.7	8.2	29	0.7
	20	4.9	27	0.4	6.4	30	0.4
40/30	5	9.6	18	6.2	12.2	23	5.3
	10	7.8	21	4.1	10.3	24	3.8
	16	5.6	24	2.1	7.2	27	1.8
	20	4.1	26	1.2	5.4	28	1.0

Heating capacity

Unit heater size		UVERS W-2					
Motor type		AC					
Air flow (m ³ /h)		4500			4200		
Number of coil rows		II			III		
Water parameters (°C)	Air inlet temperature (°C)	Heating capacity (kW), air outlet temperature (°C) and water pressure drop (kPa)					
		kW	°C	kPa	kW	°C	kPa
90/70	5	52.1	37	17.8	65.5	49	16.5
	10	47.9	40	15.1	60.2	51	13.9
	16	42.8	44	12.1	53.9	54	11.2
	20	39.0	46	10.2	49.8	55	9.5
80/60	5	44.1	32	12.7	55.7	42	11.9
	10	40.0	35	10.5	50.5	45	9.8
	16	35.1	39	8.1	44.4	47	7.6
	20	31.9	41	6.7	40.6	49	6.3
70/50	5	36.2	27	8.6	46.1	36	8.1
	10	32.2	31	6.8	41.4	38	6.5
	16	27.5	34	5.0	35.2	40	4.7
	20	24.4	36	3.9	31.2	42	3.7
60/40	5	28.5	23	5.3	36.6	30	5.1
	10	25.8	26	4.0	31.7	32	3.9
	16	20.1	29	2.7	26.0	34	2.6
	20	17.2	31	2.0	22.3	36	2.0
50/30	5	21.0	18	2.9	27.3	23	2.8
	10	17.3	21	2.0	22.5	25	2.0
	16	12.9	24	1.2	17.1	28	1.2
	20	10.1	26	1.0	13.4	29	1.0
40/30	5	20.0	17	10.5	25.4	22	10.0
	10	16.1	20	6.8	21.1	24	6.5
	16	11.5	23	3.5	14.8	26	3.4
	20	8.6	25	2.0	11.1	28	2.0

Heating capacity

Unit heater size		UVERS W-1					
Motor type		EC					
Air flow (m ³ /h)		2350			2150		
Number of coil rows		II			III		
Water parameters (°C)	Air inlet temperature (°C)	Heating capacity (kW), air outlet temperature (°C) and water pressure drop (kPa)					
		kW	°C	kPa	kW	°C	kPa
90/70	5	27.2	37	12.2	33.9	49	10.2
	10	24.9	40	10.3	31.1	51	8.6
	16	22.3	43	8.3	27.9	54	6.9
	20	21.3	45	7.5	25.8	55	5.9
80/60	5	23.0	32	8.8	28.8	43	7.4
	10	20.8	35	7.2	26.2	45	6.1
	16	18.3	39	5.5	23.0	47	4.7
	20	17.2	41	4.9	20.9	49	3.9
70/50	5	18.9	28	5.9	23.8	36	5.1
	10	16.8	30	4.7	21.3	38	4.1
	16	14.3	34	3.4	18.2	41	3.0
	20	13.5	36	2.9	16.2	42	2.4
60/40	5	14.8	23	3.7	19.0	30	3.2
	10	12.8	26	2.8	16.5	32	2.4
	16	10.5	29	1.8	13.5	34	1.6
	20	9.2	31	1.4	11.5	36	1.2
50/30	5	11.0	18	2.0	14.2	23	1.8
	10	9.0	21	1.4	11.7	26	1.2
	16	6.7	24	0.8	8.8	28	0.8
	20	5.3	26	0.5	7.0	30	0.5
40/30	5	10.4	17	7.2	13.2	22	6.2
	10	8.4	20	4.7	10.6	24	4.0
	16	6.0	23	2.4	7.7	26	2.1
	20	4.6	25	1.4	5.8	28	1.2

Heating capacity

Unit heater size		UVERS W-2					
Motor type		EC					
Air flow (m ³ /h)		5800			5450		
Number of coil rows		II			III		
Water parameters (°C)	Air inlet temperature (°C)	Heating capacity (kW), air outlet temperature (°C) and water pressure drop (kPa)					
		kW	°C	kPa	kW	°C	kPa
90/70	5	60.2	35	23.8	77.2	45	22.9
	10	55.2	37	20.2	70.9	47	19.3
	16	49.4	41	16.2	63.5	50	15.5
	20	45.5	45	13.6	58.4	52	13.2
80/60	5	50.8	30	16.9	65.5	39	16.5
	10	46.2	33	13.9	59.4	41	13.5
	16	40.4	36	10.7	52.2	44	10.5
	20	36.7	39	8.8	47.5	46	8.6
70/50	5	41.6	25	11.4	54.1	33	11.2
	10	38.4	28	9.0	48.2	35	8.9
	16	31.6	32	6.5	41.2	38	6.5
	20	28.5	34	5.2	36.4	40	5.2
60/40	5	32.7	21	7.0	42.8	27	7.1
	10	28.2	24	4.6	37.1	29	5.3
	16	23.1	27	3.5	30.3	32	3.6
	20	19.6	30	2.5	25.9	34	2.6
50/30	5	24.1	17	3.8	31.8	21	3.9
	10	19.8	19	2.6	26.2	24	2.7
	16	14.8	23	1.4	19.8	26	1.5
	20	11.5	26	1.0	15.7	29	1.0
40/30	5	23.0	16	14.0	29.9	20	13.7
	10	18.5	19	9.0	24.1	23	8.9
	16	13.2	22	4.6	17.3	25	4.6
	20	9.8	25	2.5	13.0	27	2.6

Cooling capacity

Unit heater size		UVERS W-1															
Motor type		AC								EC							
Number of coil rows		III															
Air flow (m ³ /h)		1900				1700*				2150				1700*			
Water parameters (°C)	Air inlet temperature (°C)	Cooling capacity (kW), air outlet temperature (°C), water flow (m ³ /h) and water pressure drop (kPa)															
		kW	°C	m ³ /h	kPa	kW	°C	m ³ /h	kPa	kW	°C	m ³ /h	kPa	kW	°C	m ³ /h	kPa
7/12	28	8.2	19	1.4	25.6	7.8	18	1.3	23.3	8.7	19	1.5	28.4	7.8	18	1.3	23.3
	25	6.1	17	1.0	15.3	5.7	17	1.0	13.4	6.6	17	1.1	17.6	5.7	17	1.0	13.4
	22	4.7	15	0.8	9.7	4.4	14	0.8	8.5	5.1	15	0.9	11.1	4.4	15	0.8	8.5
12/16	28	5.7	20	1.2	19.5	5.3	20	1.1	17.2	6.2	20	1.3	22.5	5.3	20	1.1	17.2
	25	4.3	19	0.9	12	4.0	18	0.9	10.6	4.7	19	1.0	13.8	4.0	18	0.9	10.6
	22	2.9	18	0.6	5.9	2.7	17	0.6	5.2	3.1	18	0.7	6.8	2.7	17	0.6	5.2

Cooling capacity

Unit heater size		UVERS W-2															
Motor type		AC								EC							
Number of coil rows		III															
Air flow (m ³ /h)		4200				3200*				5450				3200*			
Water parameters (°C)	Air inlet temperature (°C)	Cooling capacity (kW), air outlet temperature (°C), water flow (m ³ /h) and water pressure drop (kPa)															
		kW	°C	m ³ /h	kPa	kW	°C	m ³ /h	kPa	kW	°C	m ³ /h	kPa	kW	°C	m ³ /h	kPa
7/12	28	15.1	20	2.6	17.2	13.3	19	2.3	13.8	17.3	21	3.0	21.9	13.3	19	2.3	13.8
	25	12.0	18	2.1	11.5	10.1	17	1.7	8.5	14.0	18	2.4	15.1	10.1	17	1.7	8.5
	22	9.1	15	1.6	7.1	7.7	15	1.3	5.2	10.6	16	1.8	9.3	7.7	15	1.3	5.2
12/16	28	11.3	21	2.4	14.9	9.5	20	2.0	11.0	13.2	21	2.8	19.6	9.5	20	2.0	11.0
	25	8.5	19	1.8	9.0	7.1	19	1.5	6.6	9.9	20	2.1	11.7	7.1	19	1.5	6.6
	22	5.5	18	1.2	4.2	4.6	18	1.0	3.1	6.4	19	1.4	5.5	4.6	18	1.0	3.1

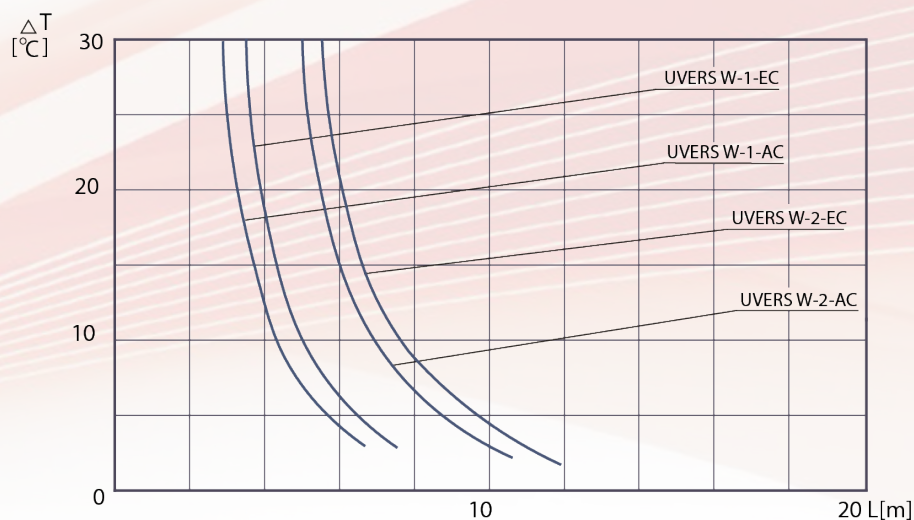
Cooling capacity indicated at 50% relative humidity

*Recommended air flow for cooling

When the unit heater is operating in cooling mode, condensation may be entrained by the air stream. In such a situation, the air flow should be reduced to the value indicated in the table (the value marked with an asterisk) and the outlet grille blades should be set at an angle of 45°.

The following are the recommended maximum speed controller settings:

- for UVERS W-1-AC operation at speed IV of the ARW speed controller
- for UVERS W-1-EC operation at speed control signal ~ 8VDC
- for UVERS W-2-AC operation at speed III of the ARW speed controller
- for UVERS W-2-EC operation at speed control signal ~ 6VDC

Warm air throw toward the floor


L – air throw toward the floor.

ΔT – temperature difference between supply and ambient air.

The UVERS W-1 unit heaters can be mounted at a height of between 3 and 7 metres.

The UVERS W-2 unit heaters can be mounted at a height of between 4 and 11 metres.

Isothermal air throw

		Isothermal air throw* (m)	
		AC	EC
Unit heater size	Fan type		
1		12	14
2		18	21

*With a terminal velocity in the air stream axis of 0.5 m/s and an average velocity in the air stream of ~ 0.2 m/s

CONTROLS

A description of the operation and selection of control systems for unit heaters can be found in the CONTROLS FOR UNIT HEATERS section of this catalogue.

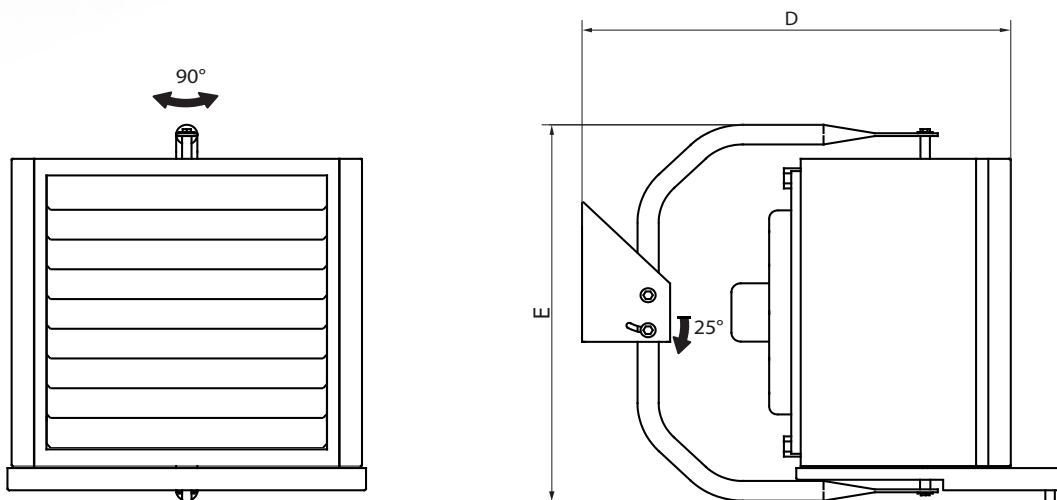
INSTALLATION

The units can be mounted on the wall using the mounting bracket that is available as an accessory for the UVERS W units.

Adjustment range:

- > horizontal rotation from -45° to +45°
- > inclination from the vertical plane to 25°;

For units with a cooling function, use the drip tray available as an accessory. When cooling, the heaters should only be operated in the vertical position.



Wall bracket	D (mm)	E (mm)	Bracket weight (kg)	Condensate drip tray	Weight of dip tray (kg)
KM-UVERS-1	682	645	3.1	TC-UVERS-1	2.0
KM-UVERS-2	782	804	3.6	TC-UVERS-2	2.5