

UAT Cabin Unit UAD Diffuser

UAT
UAD

UAT Cabin Units ceiling mounted
with UAD diffusers



UAT Cabin Unit

UAT Cabin Units ceiling mounted

Application

UAT cabin units are designed for supply air distribution in marine cabins, galleys, and other crew or passenger compartments, including offshore applications. Each unit is optionally equipped with an electric or water reheat system to maintain optimal temperature conditions, even in harsh arctic environments. Airflow can be adjusted by a control knob integrated into the diffuser.



Design & Operation.

The housing is made of galvanized steel as a standard. Available in stainless steel 304/316L or powder painted versions. With 25mm thick mineral wool cover and non-woven tissue insulation gives thermal and acoustic protection. The low-profile design allows installation between the ceiling and the deck. Two versions of airflow adjustment are available:

- Fixed flow – air flow is adjusted only at start-up of the ventilation system,
- Adjustable airflow – controlled by knob integrated into the diffuser and regulating device inside the cabin unit.

Two-duct cabin units are designed to supply conditioned air from the central air-handling unit into the cabin through two independent cold and warm air ducts. Adjusting the proportion of cold and warm supply air is also achieved through the same control knob.

For cabin units with diffusers equipped with airflow control knob, the room temperature is controlled by adjusting the airflow rate through the unit. The supply air temperature remains constant and is equal to the temperature of the air supplied by the air handling unit.

For cabin units equipped with electric heaters or hot-water heating coils and a diffuser without an airflow control knob, the airflow rate through the unit is set during commissioning and remains unchanged during normal operation. In this configuration, the room temperature is controlled by thermostat. The supply air delivered by the air handling unit is heated within the cabin unit to the temperature required to achieve the room temperature set on the thermostat.

Reheat model

Two different reheating systems are foreseen to keep thermal conditions at cold or arctic environments. Depending on heating system possibilities there are used electric or water/glycol units. The heating power depends on unit size:

- for electric heating: up to 3600 W
- for water heating: up to 2700 W

Electric heaters are designed to meet maximum surface temperature less than 200 °C.

For power supply 230V AC, 50/60 Hz safety switches protect against overheating:

- safety switch @ 60°C with automatic reset
- safety switch @ 85°C with manual reset

Polycarbonate junction box with UL94 V-0 flammability rating, IP66 and IK08 protection, for power supply connection.

Optional accessories

- room thermostat wall mounted
- zone control valves for water heating systems

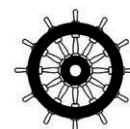
Cabin Unit Product marking:

UAT	2	CE	
Product type UAT - cabin unit	Unit size (flow range) 1 - 50 m3/h - 200 m3/h 2 - 150 m3/h - 350 m3/h 3 - 250 m3/h - 500 m3/h	Flow adjustability fixed flow* (no marking) E fixed flow* w/electric reheating W fixed flow* w/water reheating C adjustable flow w/no reheating CE adjustable flow w/electric reheating CW adjustable flow w/water reheating C2 adjustable flow w/2 ducted (cold & warm air duct)	Material grade zinc plated steel 304 stainless steel 304 316L stainless steel 316L

Example: UAT - 2 CE

means cabin unit with one inlet air duct, flow range 150 m3/h - 350 m3/h, with adjustable flow by control knob integrated into the diffuser, electric reheating inside the cabin unit. Galvanized steel housing.

MED Certified



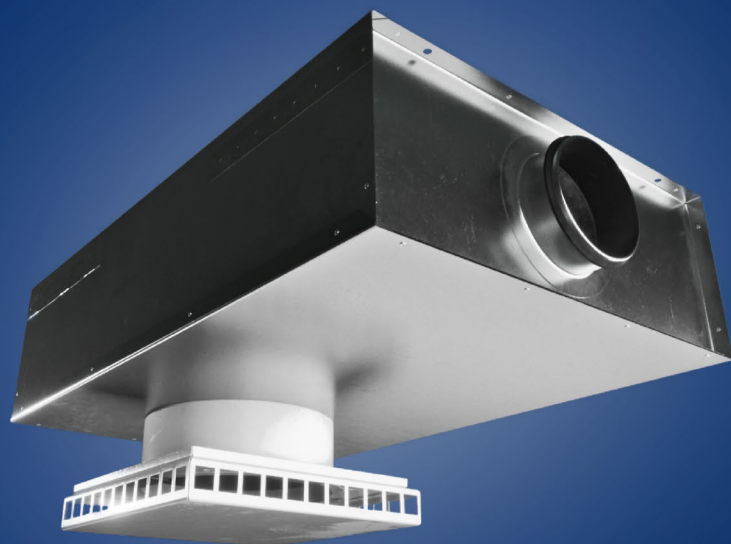
* air flow is adjusted only at start-up of the ventilation system.
The flow is fixed during normal operation. No adjusting device is included.



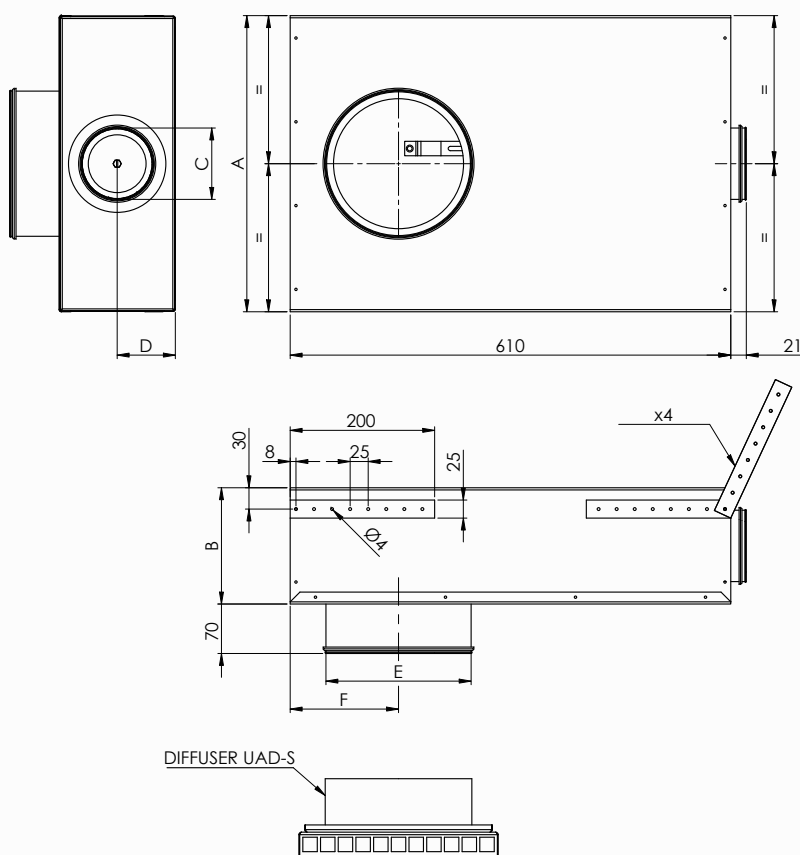
UAT Cabin Units

TYPE: UAT - 1 / 2 / 3

UAT Cabin Unit with one inlet air duct,
 airflow range 50 m³/h - 500 m³/h
 diffuser without flow regulation.



DRAWING



MATERIALS:
 HOUSING: GALVANISED STEEL
 DIFFUSER: PAINTED GALVANISED STEEL
 INSULATION: MINERAL WOOL



DIMENSIONS [mm]

Type	A	B	Ø C	D	Ø E	F
UAT-1	410	160	98,8	79,5	200	150
UAT-2	435	185	123,8	93,5	200	150
UAT-3	460	218	158,8	108,5	250	175



TECHNICAL DATA

Type	Airflow [m ³ /h]	Weight [kg]
UAT-1	50-200	10,9
UAT-2	150-350	12,2
UAT-3	250-500	14,0



SOUND DATA

Hz	63	125	250	500	1K	2K	4K	8K
ΔL	21	15	16	19	21	20	14	14
k	-	7	5	1	-4	-5	-7	-7



INCLUDED*

- UAT Cabin Unit: UAT-1 / UAT-2 | UAT-3
- UAD Diffuser: UAD-S-DN200 | UAD-S-DN250

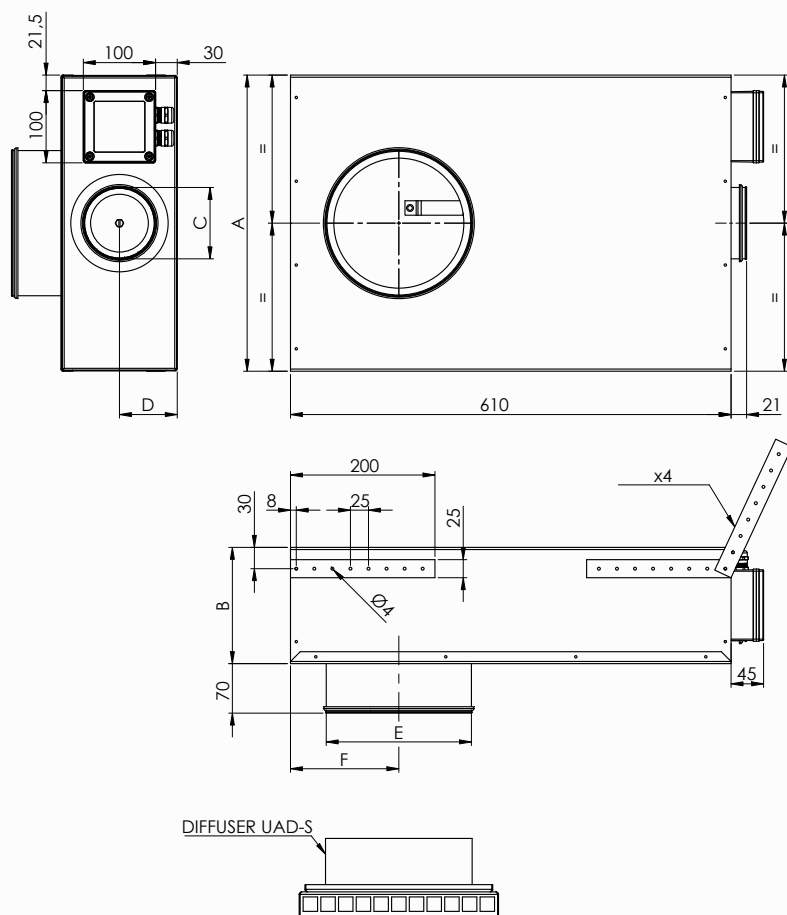
UAT Cabin Units

TYPE: UAT - 1E / 2E / 3E

UAT Cabin Unit with one inlet air duct,
airflow range 50 m³/h - 500 m³/h,
diffuser without flow regulation,
electric reheating inside the unit.



DRAWING



MATERIALS:
HOUSING: GALVANISED STEEL
DIFFUSER: PAINTED GALVANISED STEEL
INSULATION: MINERAL WOOL

 DIMENSIONS [mm]

Type	A	B	Ø C	D	Ø E	F
UAT-1E	410	160	98,8	79,5	200	150
UAT-2E	435	185	123,8	93,5	200	150
UAT-3E	460	218	158,8	108,5	250	175

 TECHNICAL DATA

Type	Airflow [m³/h]	Weight [kg]
UAT-1E	50-200	13,4
UAT-2E	150-350	14,8
UAT-3E	250-500	16,6

SOUND DATA

Hz	63	125	250	500	1K	2K	4K	8K
ΔL	22	18	14	22	24	26	28	29
k	-	7	7	2	-3	-7	-11	-10

 INCLUDED*

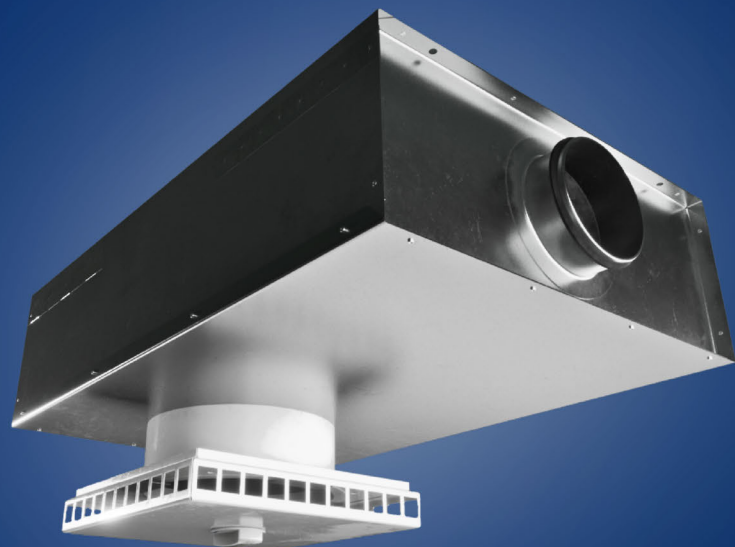
- UAT Cabin Unit: UAT-1E / UAT-2E UAT-3E
- UAD Diffuser: UAD-S-DN200 UAD-S-DN250



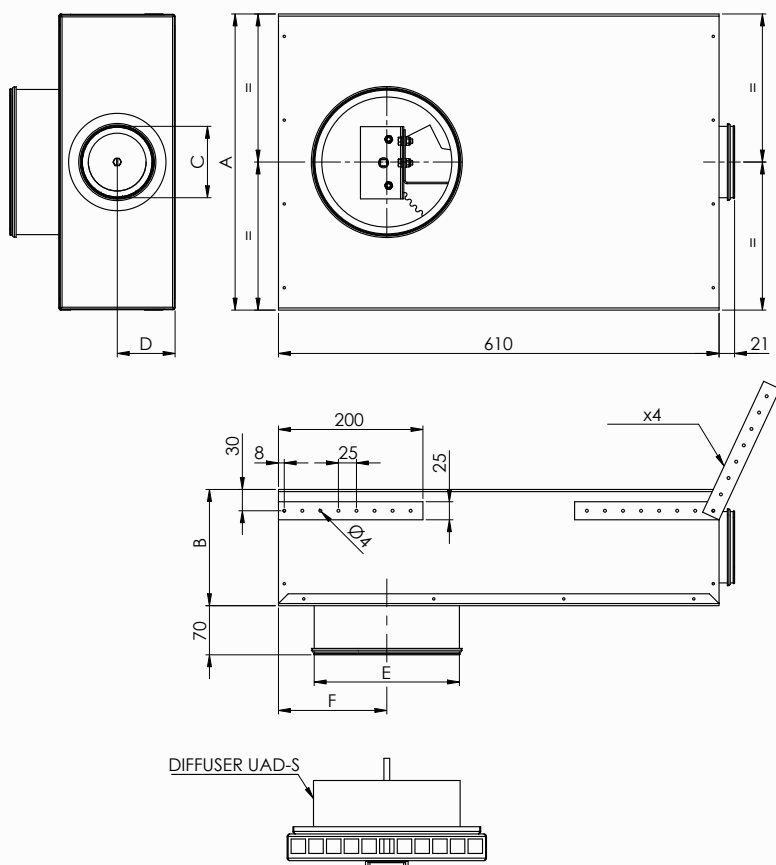
UAT Cabin Units

TYPE: UAT - 1C / 2C / 3C

UAT Cabin Unit with one inlet air duct,
 airflow range 50 m³/h - 500 m³/h,
 diffuser with flow regulation.



DRAWING



MATERIALS:
 HOUSING: GALVANISED STEEL
 DIFFUSER: PAINTED GALVANISED STEEL
 INSULATION: MINERAL WOOL



DIMENSIONS [mm]

Type	A	B	Ø C	D	Ø E	F
UAT-1C	410	160	98,8	79,5	200	150
UAT-2C	435	185	123,8	93,5	200	150
UAT-3C	460	218	158,8	108,5	250	175



TECHNICAL DATA

Type	Airflow [m ³ /h]	Weight [kg]
UAT-1C	50-200	10,5
UAT-2C	150-350	11,8
UAT-3C	250-500	13,4



SOUND DATA

Hz	63	125	250	500	1K	2K	4K	8K
ΔL	21	15	16	19	21	20	14	14
k	-	7	5	1	-4	-5	-7	-7



INCLUDED*

- UAT Cabin Unit: UAT-1C / UAT-2C | UAT-3C
- UAD Diffuser: UAD-SC-DN200 | UAD-SC-DN250



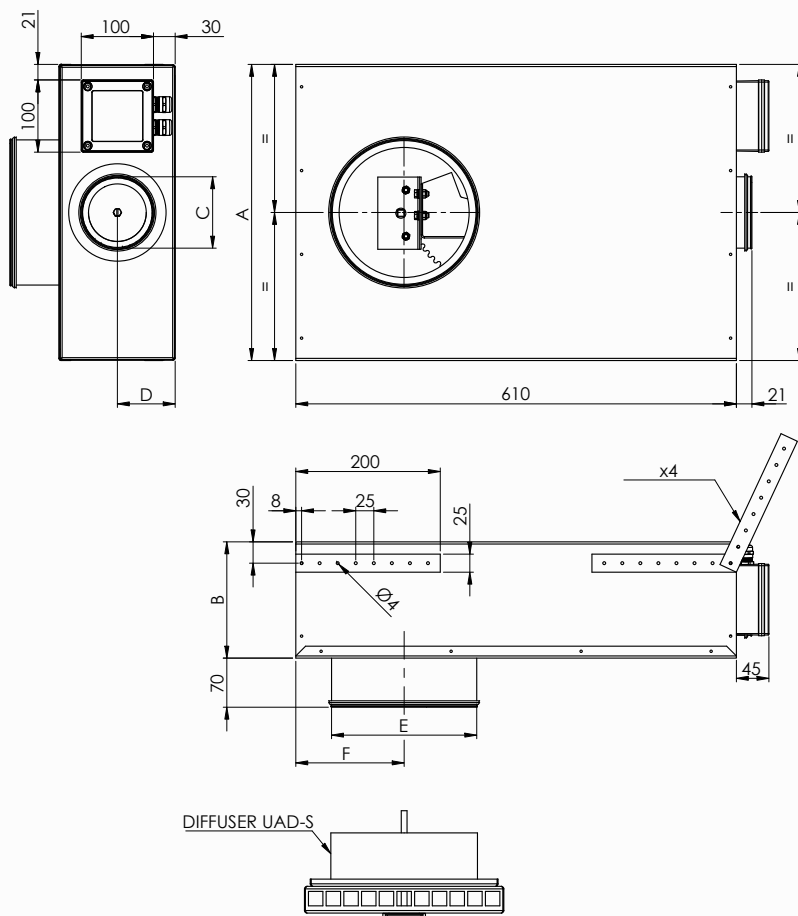
UAT Cabin Units

TYPE: UAT - 1CE / 2CE / 3CE

UAT Cabin Unit with one inlet air duct,
 airflow range 50 m³/h - 500 m³/h,
 diffuser with flow regulation,
 electric reheating inside the unit.



DRAWING



MATERIALS:
 HOUSING: GALVANISED STEEL
 DIFFUSER: PAINTED GALVANISED STEEL
 INSULATION: MINERAL WOOL



DIMENSIONS [mm]

Type	A	B	$\varnothing C$	D	$\varnothing E$	F
UAT-1CE	410	160	98,8	79,5	200	150
UAT-2CE	435	185	123,8	93,5	200	150
UAT-3CE	460	218	158,8	108,5	250	175



TECHNICAL DATA

Type	Airflow [m ³ /h]	Weight [kg]
UAT-1CE	50-200	14,0
UAT-2CE	150-350	15,3
UAT-3CE	250-500	17,2



SOUND DATA

Hz	63	125	250	500	1K	2K	4K	8K
ΔL	22	18	14	22	24	26	28	29
k	-	7	7	2	-3	-7	-11	-10



INCLUDED*

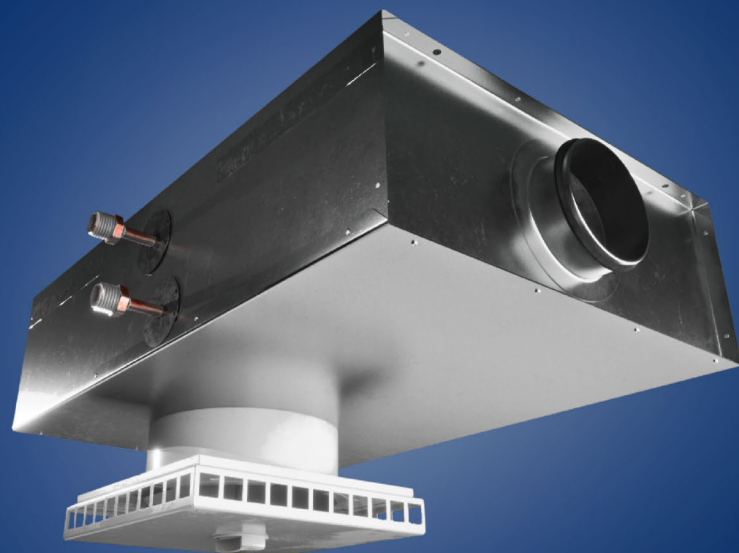
- UAT Cabin Unit: UAT-1CE / UAT-2CE
- UAD Diffuser: UAD-SC-DN200
- UAT-3CE
- UAD-SC-DN250



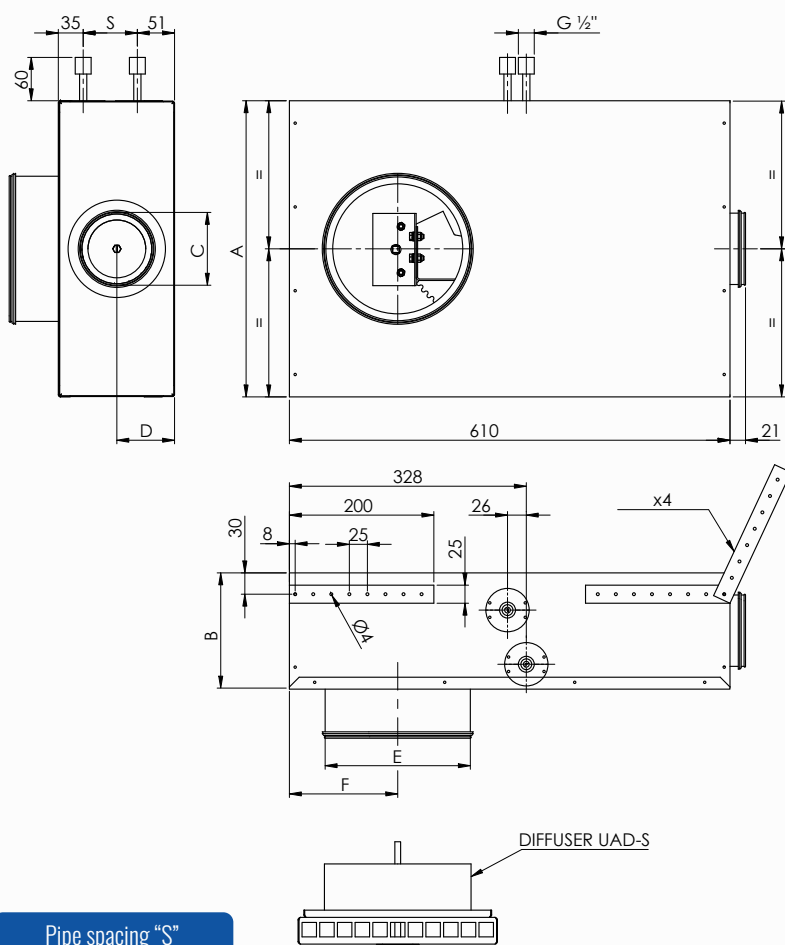
UAT Cabin Units

TYPE: UAT - 1CW / 2CW / 3CW

UAT Cabin Unit with one inlet air duct,
 airflow range 50 m³/h - 500 m³/h,
 diffuser with flow regulation,
 water reheating inside the unit.



DRAWING



Pipe spacing "S"

UAT-1CW	≈59 mm
UAT-2CW	≈69 mm
UAT-3CW	≈89 mm

MATERIALS:
 HOUSING: GALVANISED STEEL
 DIFFUSER: PAINTED GALVANISED STEEL
 INSULATION: MINERAL WOOL



DIMENSIONS [mm]

Type	A	B	Ø C	D	Ø E	F
UAT-1CW	410	160	98,8	79,5	200	150
UAT-2CW	435	185	123,8	93,5	200	150
UAT-3CW	460	218	158,8	108,5	250	175



TECHNICAL DATA

Type	Airflow [m ³ /h]	Weight [kg]	Heating capacity [kW]	Hot fluid flow rate [m ³ /h]
UAT-1CW	50-200	11.6	1	0.046
UAT-2CW	150-350	12.9	2	0.092
UAT-3CW	250-500	14.5	2,7	0.122



SOUND DATA

Hz	63	125	250	500	1K	2K	4K	8K
ΔL	22	18	14	22	24	26	28	29
k	-	7	7	2	-3	-7	-11	-10



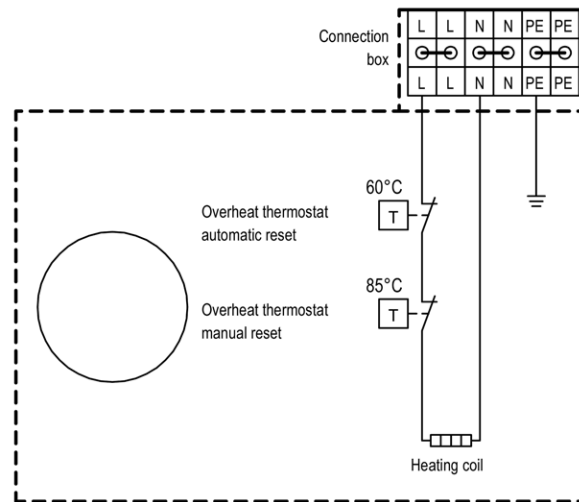
INCLUDED*

- UAT Cabin Unit: UAT-1CW / UAT-2CW | UAT-3CW
- UAD Diffuser: UAD-SC-DN200 | UAD-SC-DN250



Type of Cabin Unit	Item	Air Flow	Temperature Difference Between Inlet and Outlet Air	Heating Capacity
		Vo	ΔT	Q
		m³/h	°K	W
UAT-1E / UAT-1CE	1	75,0	5,00	135
	2	75,0	10,00	270
	3	75,0	15,00	405
	4	75,0	20,00	540
	5	100,0	5,00	180
	6	100,0	10,00	360
	7	100,0	15,00	540
	8	100,0	20,00	720
	9	150,0	5,00	270
	10	150,0	10,00	540
	11	150,0	15,00	810
	12	150,0	20,00	1080
	13	200,0	5,00	360
	14	200,0	10,00	720
	15	200,0	15,00	1080
	16	200,0	20,00	1440
UAT-2E / UAT-2CE	1	150,0	5,00	270
	2	150,0	10,00	540
	3	150,0	15,00	810
	4	150,0	20,00	1080
	5	200,0	5,00	360
	6	200,0	10,00	720
	7	200,0	15,00	1080
	8	200,0	20,00	1440
	9	250,0	5,00	450
	10	250,0	10,00	900
	11	250,0	15,00	1350
	12	250,0	20,00	1800
	13	300,0	5,00	540
	14	300,0	10,00	1080
	15	300,0	15,00	1620
	16	300,0	20,00	2160
	17	350,0	5,00	630
	18	350,0	10,00	1260
	19	350,0	15,00	1890
	20	350,0	20,00	2520
UAT-3E / UAT-3CE	1	250,0	5,00	450
	2	250,0	10,00	900
	3	250,0	15,00	1350
	4	250,0	20,00	1800
	5	300,0	5,00	540
	6	300,0	10,00	1080
	7	300,0	15,00	1620
	8	300,0	20,00	2160
	9	350,0	5,00	630
	10	350,0	10,00	1260
	11	350,0	15,00	1890
	12	350,0	20,00	2520
	13	400,0	5,00	720
	14	400,0	10,00	1440
	15	400,0	15,00	2160
	16	400,0	20,00	2880
	17	450,0	5,00	810
	18	450,0	10,00	1620
	19	450,0	15,00	2430
	20	450,0	20,00	3240
	21	500,0	5,00	900
	22	500,0	10,00	1800
	23	500,0	15,00	2700
	24	500,0	20,00	3600

Electrical diagram



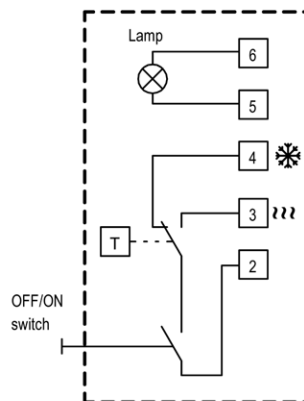
CABIN UNIT UAT-123E
with electrical reheater

Technical data

Voltage	: 220-240V AC, 50/60Hz
Power	: 250/500/1000/2000W
Cable entry	: 2 x M20 cable glands, clamping range 6-13mm
Material	: Casing - galvanized steel sheet
	Trotting device - galvanized steel sheet
	Insulation - mineral wool
	Connection box - Polycarbonate, UL94 V-0

ROOM THERMOSTAT

Electrical diagram



ROOM THERMOSTAT
TR-001X

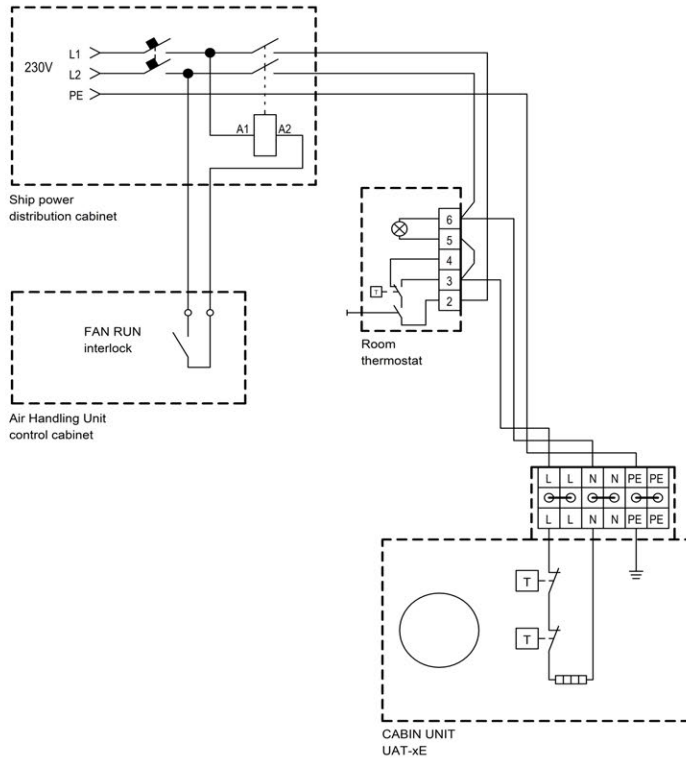
Technical data

Contacts	: SPDT, 230V AC, 10A (resistive load)
Setpoint range	: 10~30°C
Hysteresis	: 0,5~1°C
Protection class	: IP20
Dimensions	: 83 x 83 x 38mm



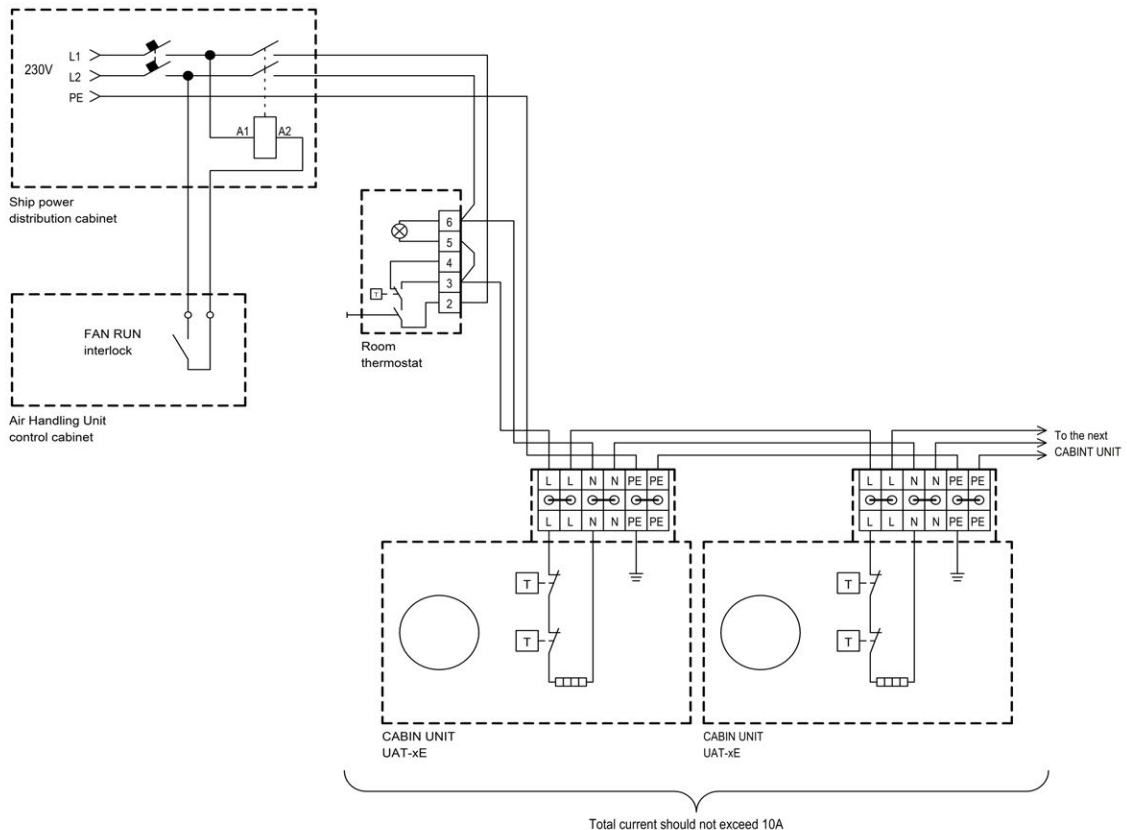
ELECTRICAL INSTALLATION

Connection example 1: Single unit wiring diagram



ELECTRICAL INSTALLATION

Connection example 2: Multiple units wiring diagram



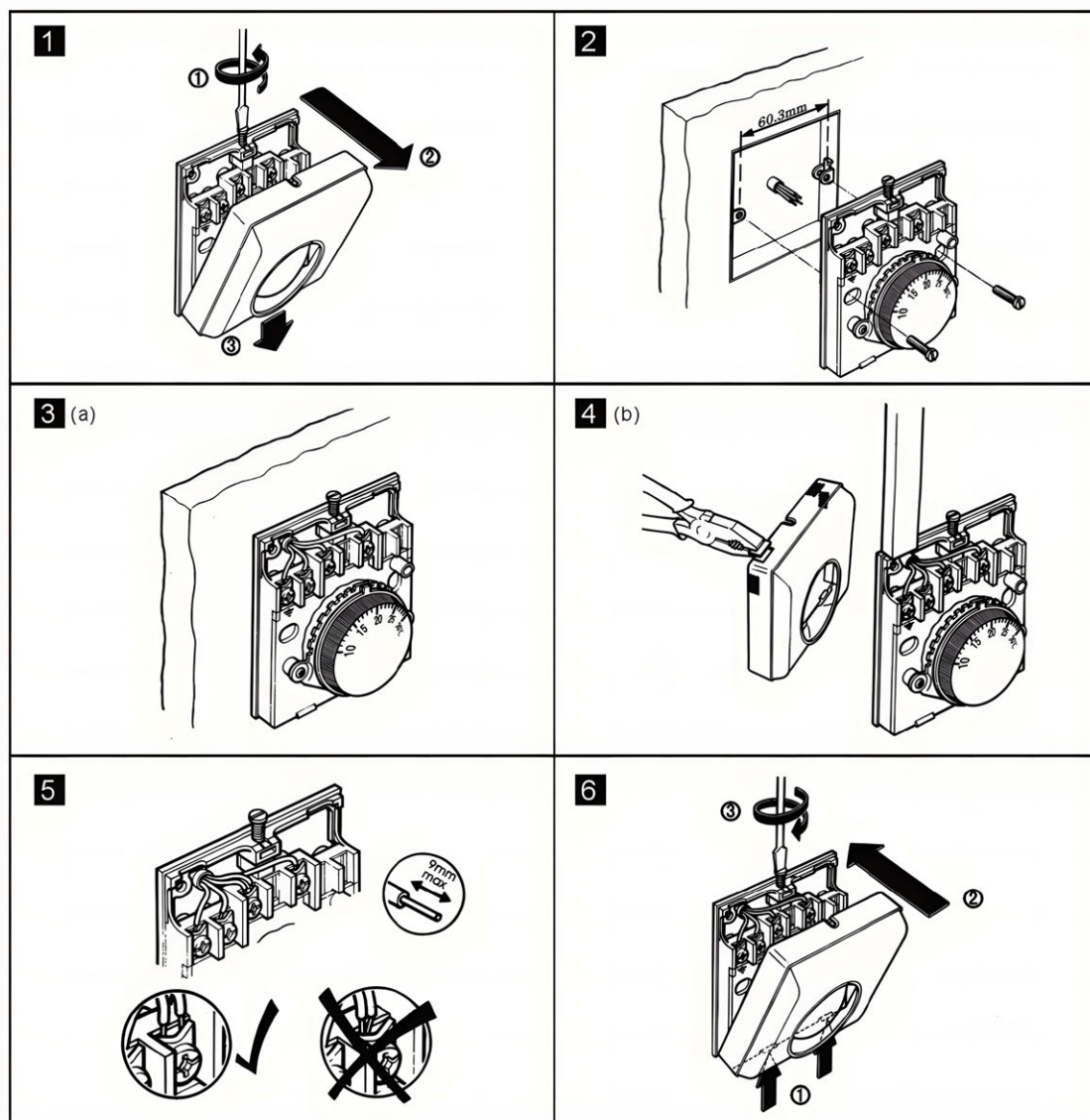
Thermostat

TYPE: TR-001X

Wall mounted room thermostat
with power ON/OFF switch.



Installation manual

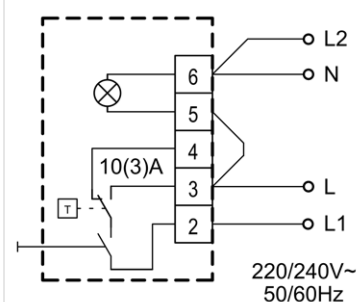


TECHNICAL DATA

Type	TR-001X
Power supply	10(3)A 230VAC
Temperature range [°C]	10 ~ 30
Switching differential [°C]	0,5 ~ 1
Temperature accuracy [°C]	± 1
Sensor type	Gas filled syphon
Protection	IP20
Dimensions [mm]	83 x 83 x 38



Wiring diagram



UAD Diffuser

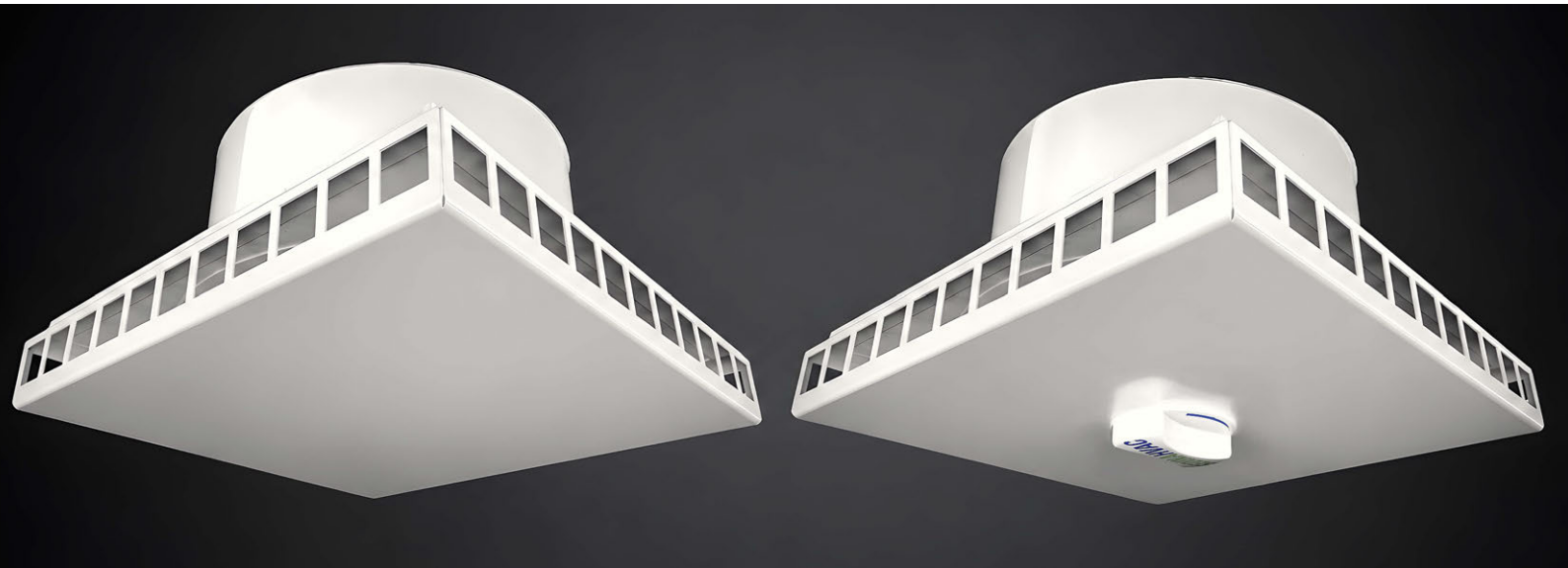
UAD Diffusers for UAT Cabin Units

Application

UAD diffusers are designed to complement the performance of UAT cabin units by delivering controlled airflow into cabins, galleys, and other interior spaces. Available in multiple sizes and finishes.

UAD diffusers offer:

- Adjustable or fixed airflow options, with or without control knob
- Galvanised steel for corrosion protection as standard
- RAL color customization, RAL 9003 as standard
- Seamless integration with ceilings and panels
- Aesthetic appeal suited to both passenger and crew areas
- Compatibility with all UAT cabin unit variants



Diffuser product marking:

UAD	—	SC	DN200	
▲		▲	▲	▲
Product type UAD - diffuser		Control knob S - without control knob / fixed flow SC - with control knob / adjustable flow	Size DN200 - for cabin unit UAT-1 and UAT-2 DN250 - for cabin unit UAT-3	Material grade painted steel RAL 9003 standard C painted steel RAL palette 304 stainless steel 304 316L stainless steel 316L

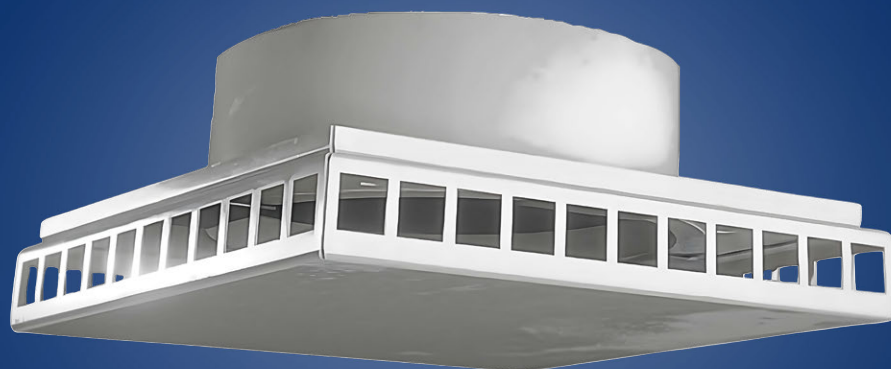
Example: UAD-SC DN200
means diffuser with adjustable flow,
for cabin unit UAT-1 or UAT-2
painted steel RAL 9003.



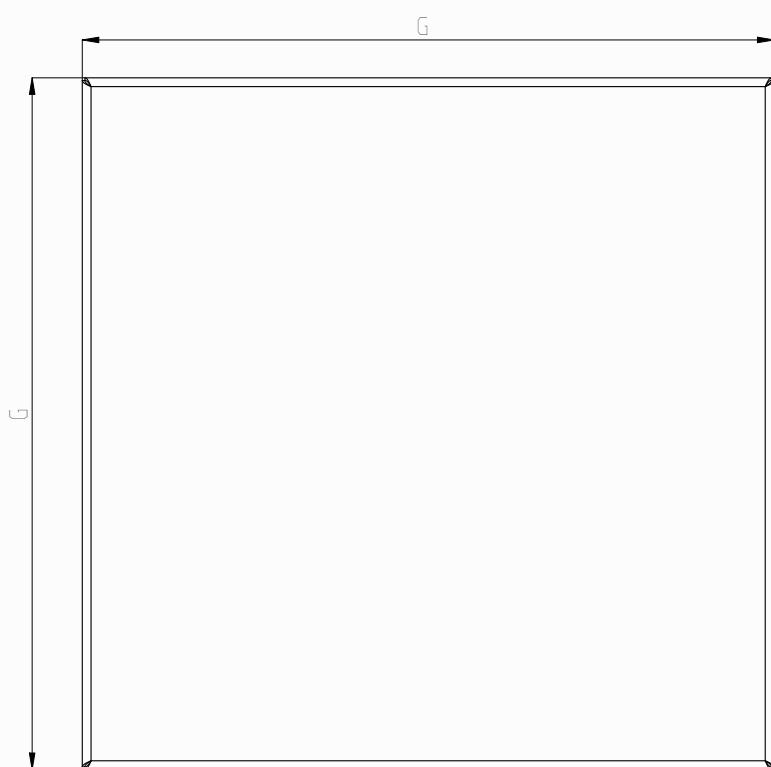
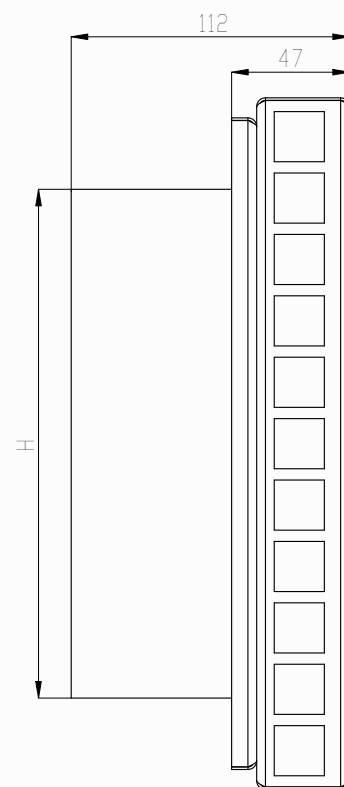
UAD Diffusers

TYPE: UAD-S-DN200
UAD-S-DN250

Diffuser without flow regulation.



DRAWING



Unit Size	G [mm]	H [mm]	Weight [kg]
UAT-1	276	202	1,7
UAT-2	276	202	1,7
UAT-3	326	252	1,9

MATERIAL: PAINTED GALVANISED STEEL (WHITE)



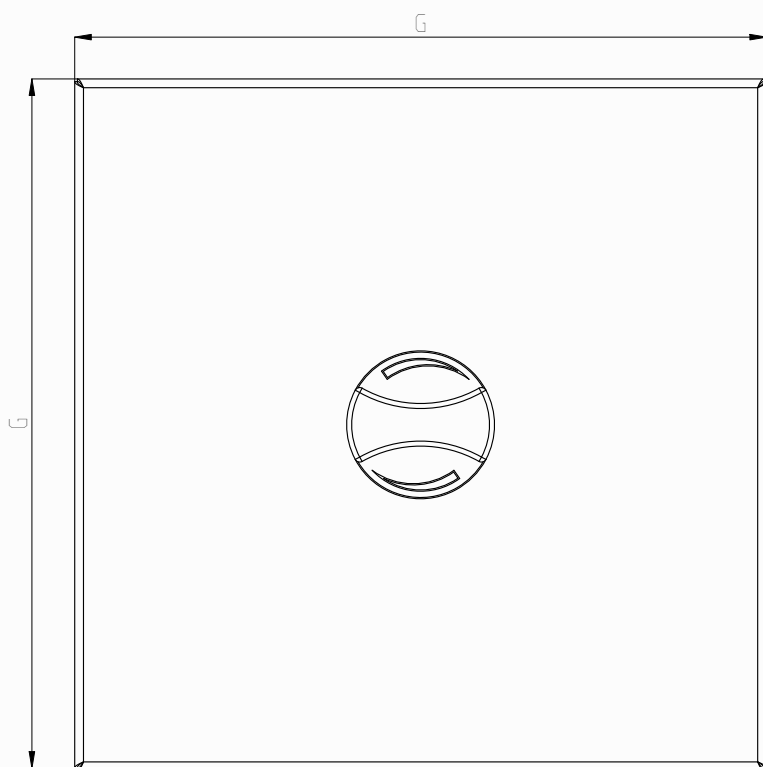
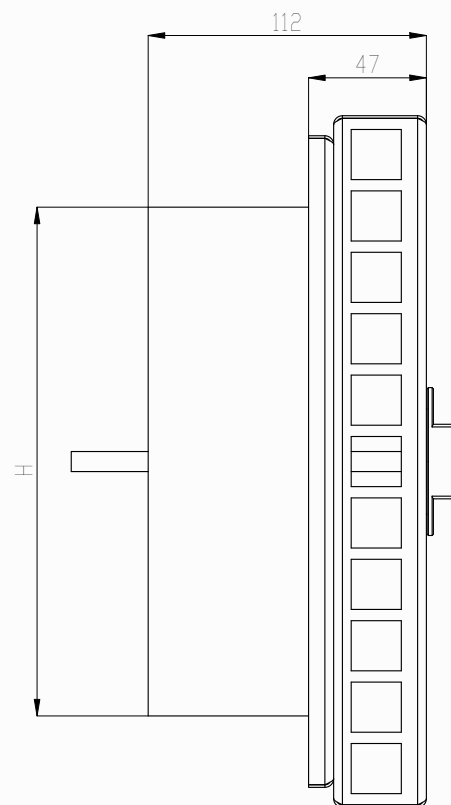
UAD Diffusers

TYPE: UAD-SC-DN200
UAD-SC-DN250

Diffuser with flow regulation.

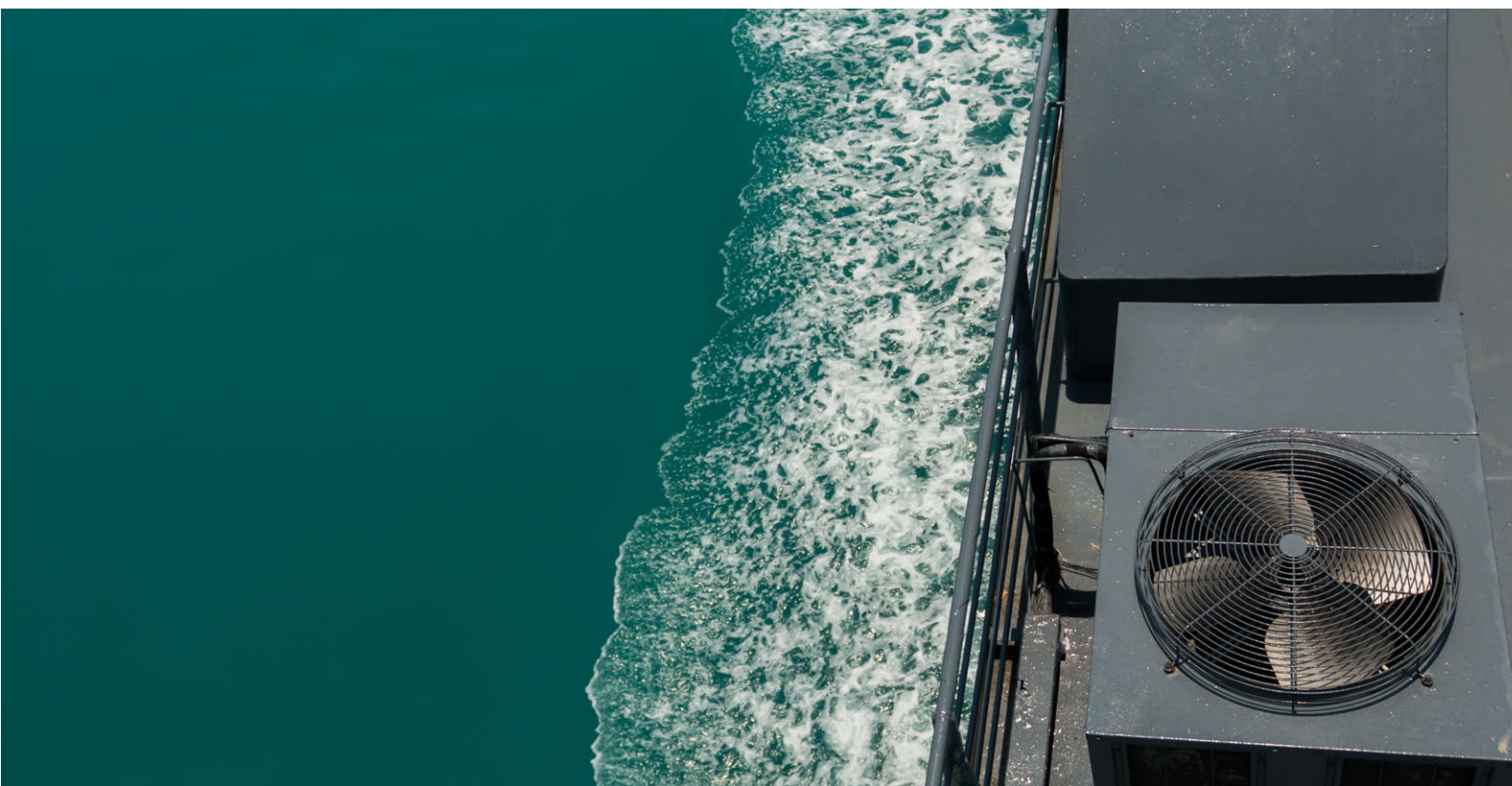


DRAWING



Unit Size	G [mm]	H [mm]	Weight [kg]
UAT-1C	276	202	1,9
UAT-2C	276	202	1,9
UAT-3C	326	252	2,1

MATERIAL: PAINTED GALVANISED STEEL (WHITE)



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