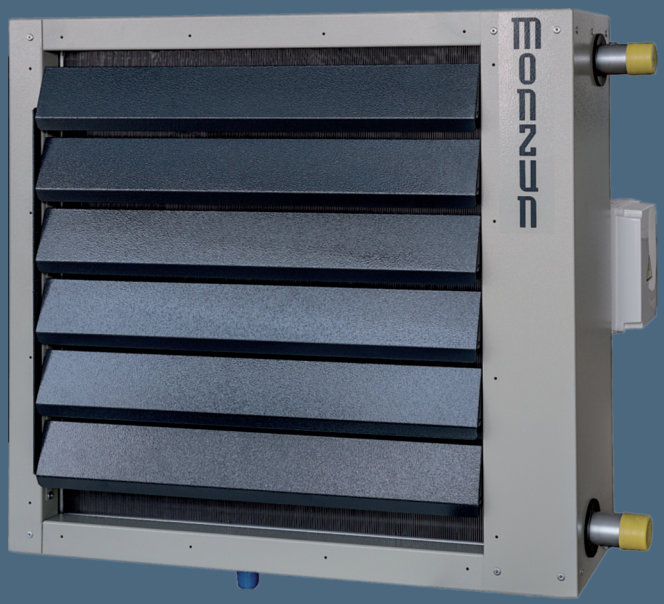
MANDIK®

AIR HEATER WITH COOLING CAPABILITY

MONZUN - TEC



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MONZUN-TEC

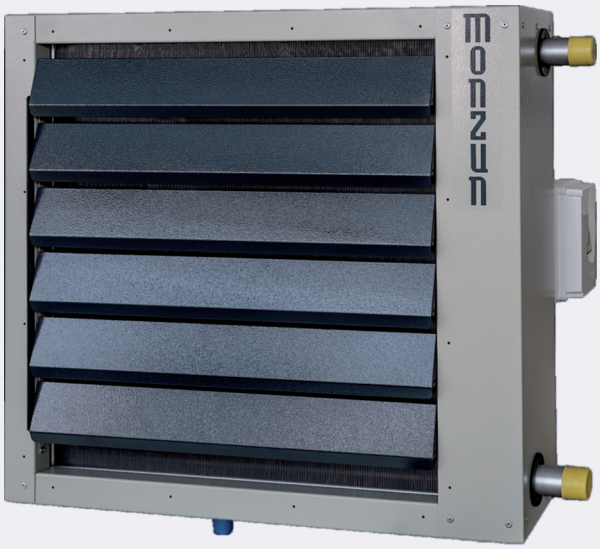
Monzun-TEC units are intended for heating or alternatively cooling of rooms and halls by heated or cooled air according to temperature of the supplied medium. The heating or cooling medium is water.

Monzun-TEC units are intended for environment protected against weather impacts with classification of climatic conditions class 3K5, without condensation, frost, ice formation, and without water even from other sources than rain according to EN 60 721-3-3, change A2, with temperature range from 0°C to +40°C, and for premises without explosion hazard.

The air passing through the unit must not contain solid, fibrous, sticky, or aggressive particles.

The maximum water temperature at the heater inlet amounts to 100°C and the maximum pressure is 1.4 MPa.

The unit's degree of protection is IP 54.



Construction

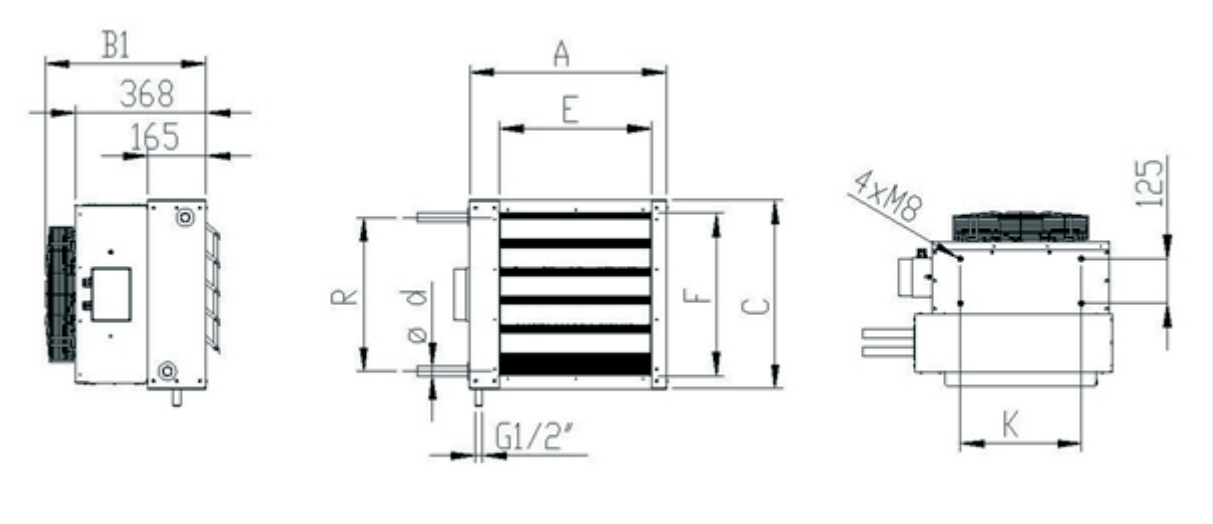
MONZUN - TEC units are produced in three dimension series (1, 2, and 3).
The heaters are produced with three- or four-row heating coil.
They are fitted with a G1/2“ threaded neck for condensate drainage.
The units are delivered with the following vents at the discharge:
- Basic vent (louver grille)
- Basic and two-sided vent

The basic vent makes it possible to direct the leaving air flow to required height by means of coupled adjustable louvers.
The basic and two-sided vent makes it possible to direct the air flow to required height as well as to sides by means of adjustable louvers.

The units can be connected to heating or cooling water distribution trough:
- left-side connection (standard version)
- right-side connection (must be specified in the order)

Monzun-TEC units are equipped with single-phase AC fans with protective grids preventing their contact with rotating parts. The fans have degree of protection IP 55.

Monzun-TEC Unit Dimensions



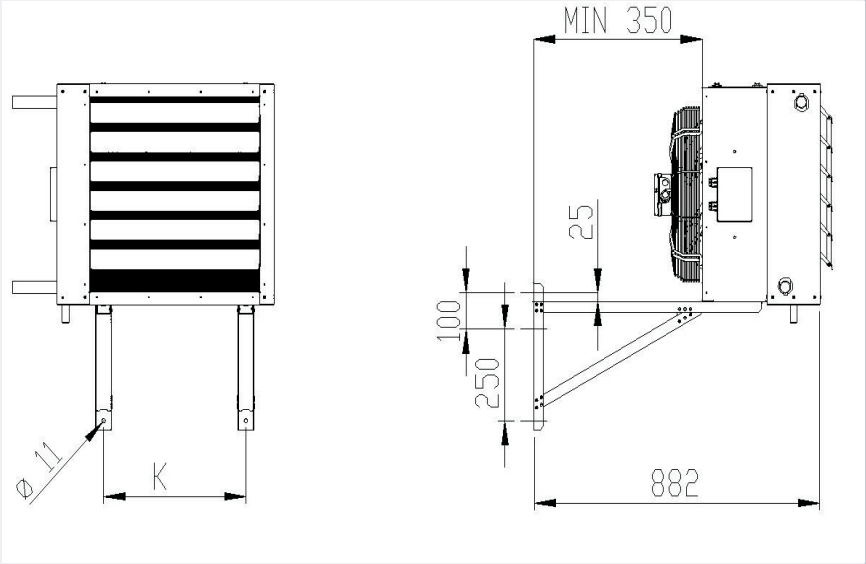
Type	Dimension [mm]								Weight [kg]
	A	B1	C	d	E	F	K	R*	
1.4.150	550	452	530	3/4"	425	456	340	430	28
2.3.220	663	543	606	1"	525	532	440	500	38
2.4.200	663	543	606	1"	525	532	440	500	40
3.3.400	859	580	758	5/4"	700	684	615	660	61
3.4.350	859	580	758	5/4"	700	684	615	660	64

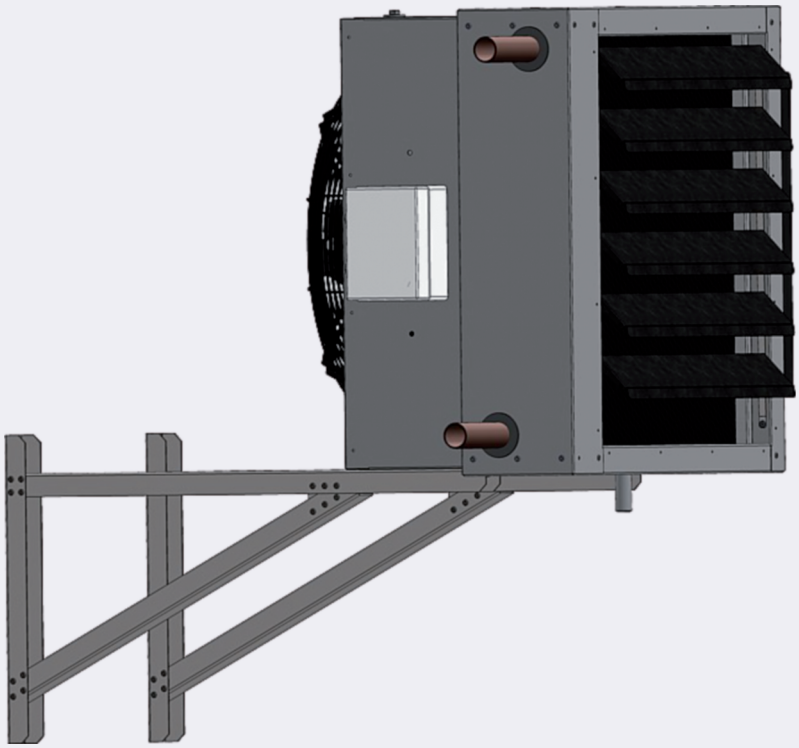
Electrical and technical parameters of Monzun – TEC unit

Type	Airflow [m^3/h]	Heating output [kW]	Electric input [W]	Cooling output [kW] - air 31°C/50%r.h.	Cooling output [kW] - air 33°C/50%r.h.	Cooling output [kW] - air 35°C/50%r.h.
1.4.150	1500	24,6	190	6,2	7,5	9,0
2.3.220	2100	30,4	170	9,1	10,9	13,1
2.4.200	1900	33,1	170	10,1	12,1	14,4
3.3.400	4000	56,5	240	18,5	22,3	26,2
3.4.350	3700	63,0	240	20,9	24,9	29,1

Power supply of Monzun-TEC units: 230V/50Hz; protection: 6A

An example of Monzun-TEC unit installation on cantilevers





Placement and installation

The unit has four suspension points provided with M8 threads at the upper carrier panel of the fan and four at the lower carrier panel; those are used to fix it to the bearing structure. Because of condensate drainage, Monzun-TEC units can only be installed with horizontal airflow direction.

If condensed air moisture is removed to drainage, it is necessary to install an intercepting trap (siphon).

The shape of the condensate tank ensures smooth removal of condensate, if the unit is installed correctly.

Airflow through the heat exchanger does not exceed 2.5 m/s, which enables condensate draining without drops. Nevertheless, at start of operation with cooling, small drops of condensate may occur in the cooled air, which shall be taken into account in placement of the units.

Materials used

The heat exchanger of the unit is made from copper tubes with aluminium plates. The heat exchanger frame is made of aluminium.
The casing of the unit is made of galvanized steel sheet with powder coating surface finish.
The condensate tank and the neck for condensate removal are made of aluminium, with the same surface finish as the unit casing.

Colours

Standard colour combination of the unit casing is RAL 7032 (light grey), and the vent louvers RAL 7016 (anthracite grey). Other colour combinations are possible by agreement with the manufacturer.

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