

Active cooling – Air conditioners

For active temperature management, we offer high-quality STULZ- Cosmotec A/C units. These A/C ETE units are designed for cooling the equipment in individual data cabinets (RDE and RIE cabinets with IP54 protection). These A/C units are intended for both industrial and office environments. These are compact units that extract the heat produced by the technology from the cabinet and transfer it to the immediate surroundings. Therefore, no ducting or other piping is needed, but on the other hand, sufficient air exchange in the area around the cabinet must be ensured.

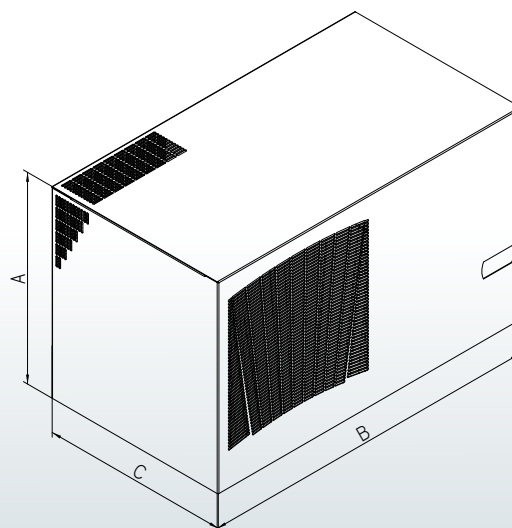
The A/C unit has two separate circuits for air circulation:

- 1. The inside circuit**, which cools all installed equipment and enters the A/C unit, where the hot air is transferred to a cooling medium.
- 2. The circuit that is cooling compressor**, and which by an air stream takes the excess heat away.

Thanks to this arrangement, the air from outside is not mixed with the air from the inside of the cabinet. So the humidity

inside the cabinet is not affected. Excessive humidity can condense on the equipment or can freeze inside the cooling unit which can lead to damage. It is very important to set up the A/C unit correctly and then consider the surrounding temperature and humidity. It is also possible to equip our data cabinet with a door sensor, which automatically shuts the compressor off when the door is opened. The A/C unit may be controlled by an electrical unit, which includes thermostats in two different parts of the cover. There are several options for installing such A/C units. The A/C unit can draw in the hot air and blow out cold air along the side panels of the cabinet or it can be installed on the front/rear side according to the customer's requirements. For the A/C unit to function properly, it is necessary to provide it with sufficient air circulation and an appropriate temperature. The unit has special sensors which monitor the space from surrounding objects. For more information please refer to the manual of each A/C unit.

RAC-KL-ETE-X1



■ RAB-KL-ETE-Yx, RAC-KL-ETE-Yx

Roof cooling unit ETE. Specially designed for the installation to the top of the cabinet.

Air conditioners with a width of 800 mm can be mounted on 800 mm wide cabinets. When installed as a depth-oriented A/C unit, these units can also be used on 600 mm wide cabinets with a minimum depth of 1000 mm.

A/C units with a width of 600 mm can be mounted on 600 and 800 mm wide cabinets.

Roof cooling unit ETE

Part number	Coolant type	Cooling capacity (W)	External dimensions (A x B x C)	Temperature range set up	Power supply (V/Hz)	Air flow (m³/h)	Electric input (W)	Noise level (dB)	Weight (kg)
RAX-KL-ETE-Y1	R134a	1400	450 x 600 x 408	electrical thermostat	230/50-60	575	950	58	48
RAX-KL-ETE-Y2	R134a	2000	450 x 600 x 408	electrical thermostat	230/50-60	860	1200	62	51,5
RAX-KL-ETE-Y3	R134a	2700	485 x 800 x 465	electrical thermostat	230/50-60	860	1580	77	74,5
RAX-KL-ETE-Y4	R134a	3800	485 x 800 x 465	electrical thermostat	230/50-60	1450	2000	77	76,5

Operating conditions:

The ETE A/C unit is designed to work in a horizontal position as a roof unit for free-standing cabinets. It is also necessary to transport the unit in a horizontal position and install it accordingly. We offer adapters for installation on RIE, RDE and RPE data cabinets, which seal the A/C unit at the cabinet body and which also would direct the cold air flow inside the cabinet. The units contain a drip tray, which collects condensation from the cooled space. Should there be an increase in condensation (which can happen with higher air humidity, lowered temperature inside the cabinet, the door left open, etc.) it is necessary to install a safety condensate draining pipe and follow the mounting instructions described in the attached manual.

Operating environment:

Min. ambient temperature in the working condition: +20 °C

Max. ambient temperature in the working condition: +50 °C

Adjustable temperature range: 25 – 45 °C

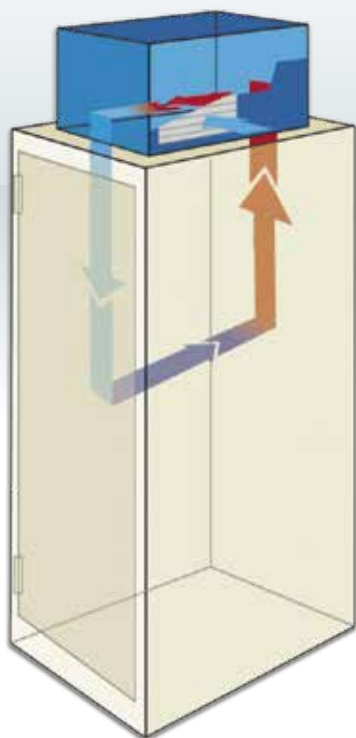
Recommendation:

With regard to the demand of a maximum life-time of the unit's equipment, those are the recommended parameters of the inner environment of the cabinet.

Temperature limits: from +10 till + 40 °C

Relative humidity: 30 – 90 %

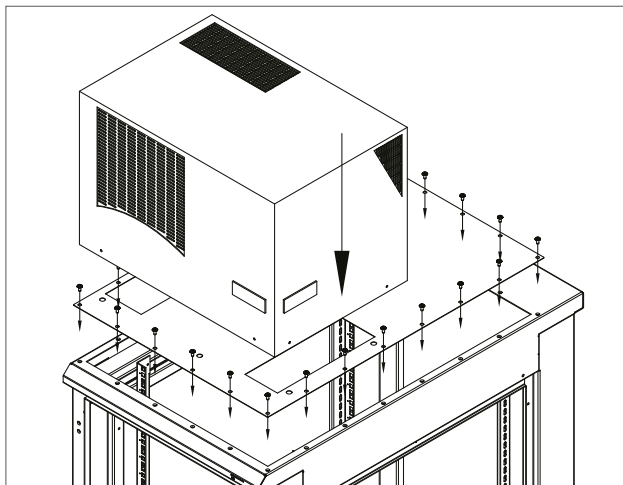
Surface temperature of the inner equipment of the cabinet should not fall below the condensation temperature.



The A/C unit can be installed on cabinets in such a way that it reaches all needs of a cold air demanded by used equipment.

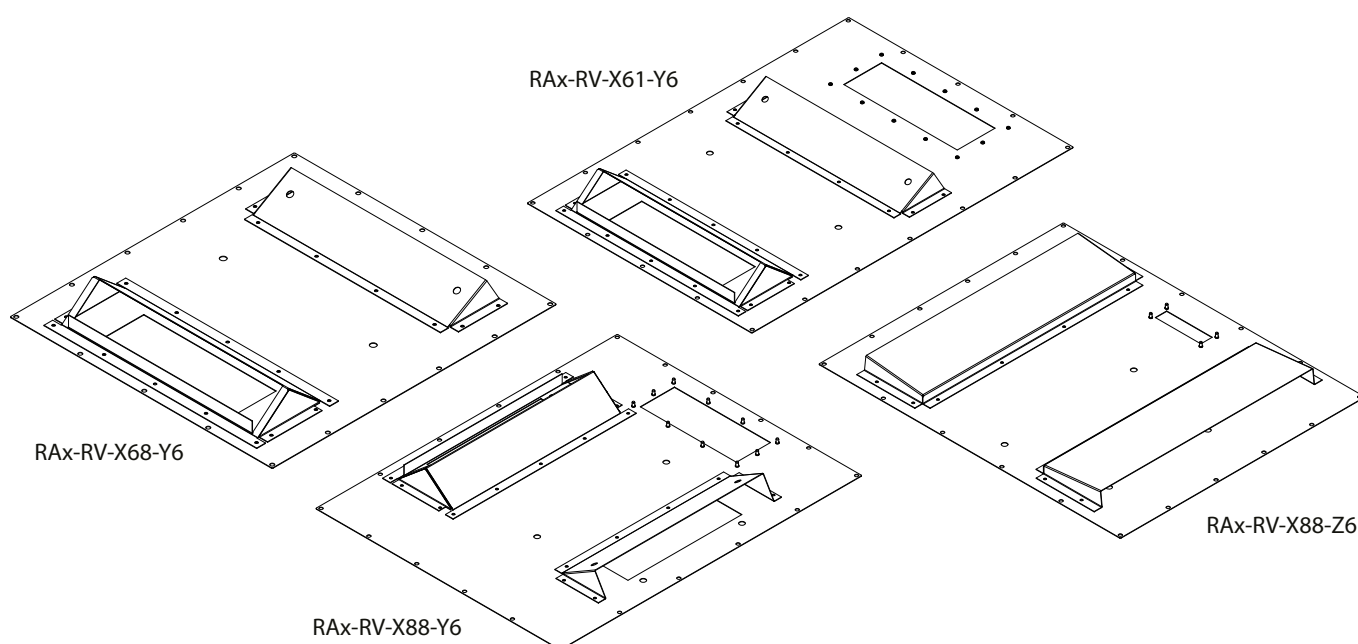
There is an opening located at the top of the RIE, RDE or RPE cabinet, which requires an installation of an adapter. An appropriate adapter can set the right direction of the A/C unit and it also sets the stream of the hot/cold air along the sides or along the front/rear sides of the cabinet.

Adapter for the A/C units



■ A/C installation

In order to utilise the maximum potential of A/C units with cooling air directed properly according to all equipment needs, we supply installation adapters for RIE, RDE and RPE cabinets. This is a metallic panel which is screwed to the large-sized opening at the top of the cabinet where the installation of A/C is required. Adapters are symmetric which means that rotating is simple. All sizes of adapters are shown in the table below. For easy access to the controlling panel it is possible to install it in two positions with simply plugging into the connector (see installation manual).



Adapter for air conditioners types and dimensions

Type	A (mm) cabinet depths	B (mm) cabinet width	A/C unit type	Direction of A/C installation	Assembly set	Cable entry (number of cables) (optional accessories - not included)
RAX-RV-X66-Z6	600	600	Y1, Y2	into the cabinet width	A	SXx-SA-K03-X1 (2 x Ø 5-9 mm; 2 x Ø 7-12 mm)
RAX-RV-X68-Y6	800	600	Y1, Y2	into the cabinet depth	B	does not have a cable input
RAX-RV-X68-Z6	800	600	Y1, Y2	into the cabinet width	A	SXx-SA-K03-X1 (2 x Ø 5-9 mm; 2 x Ø 7-12 mm)
RAX-RV-X61-Y6	1000,1100,1200	600	Y1, Y2	into the cabinet depth	B	RAX-PB-X01-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)*
RAX-RV-X61-Z6	1000,1100,1200	600	Y1, Y2	into the cabinet width	C	RAX-PB-X01-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)*
RAX-RV-X61-Y8	1000,1100,1200	600	Y3, Y4	into the cabinet depth	B	does not have a cable input
RAX-RV-X86-Z6	800	800	Y1, Y2	into the cabinet width	B	SXx-SA-K03-X1 (2 x Ø 5-9 mm; 2 x Ø 7-12 mm)
RAX-RV-X88-Y6	800	800	Y1, Y2	into the cabinet depth	B	SXx-SA-K02-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)
RAX-RV-X88-Z6	800	800	Y1, Y2	into the cabinet width	B	SXx-SA-K03-X1 (2 x Ø 5-9 mm; 2 x Ø 7-12 mm)
RAX-RV-X88-Z8	800	800	Y3, Y4	into the cabinet width	B	SXx-SA-K02-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)
RAX-RV-X81-Y6	1000,1100,1200	800	Y1, Y2	into the cabinet depth	D	RAX-PB-X01-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)*
RAX-RV-X81-Z6	1000,1100,1200	800	Y1, Y2	into the cabinet width	D	RAX-PB-X01-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)*
RAX-RV-X81-Y8	1000,1100,1200	800	Y3, Y4	into the cabinet depth	D	SXx-SA-K02-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)
RAX-RV-X81-Z8	1000,1100,1200	800	Y3, Y4	into the cabinet width	D	RAX-PB-X01-X1 (29 x Ø 7-12 mm; 4 x Ø 7-14 mm; 4 x Ø 11-20 mm; 1 x Ø 16-29 mm)*

Supply:

A: 12 pcs. screw M5x12 with integrated washer, 6 pcs. screw M5x12 countersunk head, 18 pcs. rubber gasket

B: 20 pcs M5x12 screw with integrated washer, 20 pcs rubber gasket

C: 14 pcs. screw M5x12 with integrated washer, 6 pcs. screw M5x12 countersunk head, 20 pcs. rubber gasket

D: 22 pcs M5x12, 22 pcs rubber gasket

* (same type of grommet supplied with the enclosure with increased IP protection)