



Weiss Mobile Air Conditioning Systems

Tent Air Conditioning Units Series ZKB

Tent Air Conditioning Units Series ZKB...

Ready for operation any time, any place...

You need an absolutely reliable, robust and mobile air conditioning unit? A unit suitable for both desert and jungle or even for arctic conditions? Easy to manoeuvre? Easy to transport? With the most flexible connections for the operation with either recirculated or outside air?

The answer is: Mobile air conditioning systems of Weiss. The tent air conditioning units are suitable for the most diverse applications.

They are developed specifically for the use in functional tents and shelters and for the accommodation of persons. It is easily able to create ambient conditions comfortable for human beings.

The unit is widely approved and is preferred particularly by:

- Military area in mobile hospitals, command posts and military camps
- Disaster prevention organisations
- Aid organisations



Type ZKB 15-A10 and ZKB 15

Outstanding Product Characteristics

- Compact constructions integrated into a transport frame
- Frame of welded aluminium profiles
- Housing of aluminium plate, lacquered inside and outside (all RAL colours possible)
- Small transmission losses due to double shell structure with insulation
- Easy transport due to built-in transport wheels and handles as well as additional loops for lifting by crane or fork lift truck
- Fastening of all mobile components for transport
- Easy access for service and maintenance
- Ready to plug in
- Integrated cooling circuit with scroll compressor
- One or two level electric heater to balance extreme temperature fluctuations (day/night)
- Integrated rotary field watch dog with a manual switch
- Integrated switch and regulation component including circulated air or room air thermostat

Operation modes

- Heating / Cooling / Ventilating
- Use with circulated or outside air
- Connections via a flexible hose system
- Low noise mode for night operation



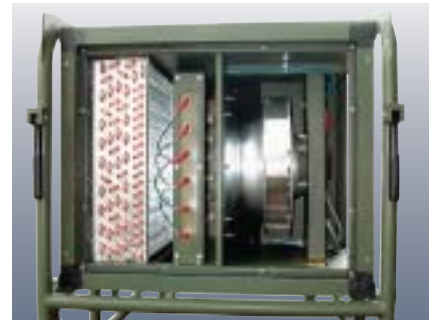
Components of Tent Air Conditioning Units ZKB

ZKB 15-A10 Outside Air System

- Supply air fan
- Condenser air fan
- Scroll compressor
- Air cooling by direct evaporator
- Condenser
- Electric heater
- Electric compartment and control unit
- Filter G3
- Filter box with filters F5 + F7
- Supply air hose system

ZKB 15 Circulated Air System

- Supply air fan
- Condenser air fan
- Scroll compressor
- Air cooling by direct evaporator
- Condenser
- Electric compartment and control unit
- Supply and return air hose system



Optional component

Air distribution system (inside tent)



Weiss Tent Air Conditioning Units of Series ZKB...

Type ZKB 10/6 MFA and 15/10 MFA

Outstanding Product Characteristics

- Condenser and evaporator module
- Installation as a complete system (all modules outside the tent) or a split-system (evaporator module inside the tent) possible
- Operation as a fresh air or a recirculating air system possible
- Compact construction with an additional transport frame
- Design with aluminium panels, coloured RAL 6031
- Easy transport with integrated handles
- Easy maintenance via big and easy removable covers
- Connection finished system integrates a fully hermetic refrigerant circuit with a scroll compressor (condenser module) and an airflow section with filter, cooler and supply fan (evaporator module)
- Evaporator module pre-installed with glycolheater and couplings to operate with optional heating module
- Compressor equipped with soft starter (only ZKB 10/6 MFA)
- Condenser and evaporator module connected by flexible hoses with quick release selfsealing couplings, length of 5 m
- Operation modes: Cooling/heating (electrical) or only blowing without temperature control or heating with optional heating module
- Integrated rotary field watchdog with a manual switch (only ZKB 15/10 MFA)
- Control panel with switches, lamps, thermostat with cable (10 m) and plug to place inside the tent
- Power connection cable (15 m) with plug
- Special condensate drain system with flexible pipe, length of 5 m
- Condenser fan speed controlled
- Integrated lightning protection installed
- Easy connection to an air distribution system (inside the tent) possible

The following functional components are integrated:

Condenser module

Scroll compressor with soft starter (only ZKB 10/6 MFA), condenser (2), condenser fan (speed controlled), cooling circuit, electric compartment with the lightning protection and power supply cable.



Evaporator module

Filter G4, cooler as an evaporator, glycol heater, supply air fan, electric compartment, control panel.

Options

Transport

- Frame with wheels, to install at the existing transport frame at the modules.



Heating

- Electric heater, installed in the evaporator module to compensate the temperature difference between night and day.
- Separate heating module as a fuel heater (Diesel) with complete water-glycol circuit with pump, fuel lance for 20 l jerry can, waste gas pipe and glycol-hoses with quick release self seating couplings, 5 m long.

Filter

- Air inlet filter G3 (metal, cleanable), integrated in the evaporator module
- Air inlet filter F5 or F7, integrated in the evaporator module
- Sand protection housing or sand filter to be installed at the evaporator module (placed outside the tent)



Supply air hose system

(evaporator module outside the tent)

- External insulated flexible air hose, length of 4.5 m coloured black (other length possible)
- Air hose connector to be installed at the evaporator module

Air distribution system

(inside the tent)

- Air hose system of Trevira CS, designed to be installed inside the tent
- Air hose connector for connection on top of the evaporator module

Additional parts

- Softstarter for compressor
- Earthing kit
- Tool to connect cooling pipes



Technical data...

	ZKB 15-A10 Outside Air System	ZKB 15 Circulated Air System
Capacities		
Total cooling capacity (refrigerant)	10,000 W (R134A)	11,000 W (R134A)
Heating capacity (electric heater)	7,200 W	7,200 W
Air Volume		
Supply air	850 m ³ /h outside air	1,500 m ³ /h
Condenser air volume flow	2,500 m ³ /h	2,500 m ³ /h
Filtering		
Step 1	G3 (EN 779)	optional
Step 2 (in add. filter box)	F5 (EN 779)	optional
Step 3 (in add. filter box)	F7 (EN 779)	optional
EMC	according to 89336/EWG EN 50081 and EN 50082	according to 89336/EWG EN 50081 and EN 50082
Sound pressure level		
Inside tent	55/60* dB (A)	55/60* dB (A)
Outside tent	63** dB (A)	63** dB (A)
Power Supply	400 V, 3 Ph, 50 Hz	400 V, 3 Ph, 50 Hz
Power Consumption	max. 9 kVA	max. 9 kVA
Operational Temperature Range	-32 °C up to +49 °C	-32 °C up to +49 °C
Colour	RAL 6031 HR	RAL 6031 HR
Dimensions and weight		
Width	1,845 mm	1,845 mm
Depth	965 mm	965 mm
Height	1,025 mm	1,025 mm
Weight	300 kg	300 kg
Transport	The system is designed with a frame with castors and handles for easy moving by one person or carrying by six persons.	

* Geom. centre of tent
** Distance: 7 m

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	ZKB 10/6 MFA	ZKB 15/10 MFA
Capacities Total cooling capacity (refrigerant) Heating capacity (electric heater) Heating capacity (heating module)	6,000 W (R134A) 3,000 W 10,000 W Fuel: Diesel (F54) Water-Glycol Mixture (50/50)	11,000 W (R134A) 7,200 W 30,000 W Fuel: Diesel (F54) Water-Glycol Mixture (50/50)
Air Volume Supply air Condenser air volume flow	1,000 m ³ /h 2,000 m ³ /h	1,500 m ³ /h 3,000 m ³ /h
Filtering	G4 (EN 779) further qualities as option	G4 (EN 779) further qualities as option
Sound pressure level Inside tent Outside tent	approx. 55–60* dB (A) approx. 60–65** dB (A)	approx. 55–60* dB (A) approx. 60–65** dB (A)
EMC	according to 89336/EWG EN 50081 and EN 50082	according to 89336/EWG EN 50081 and EN 50082
Power Supply Power Consumption	230 V, 1 Ph, 50 Hz max. 4 kVA	400 V, 3 Ph, 50 Hz, right hand rotary field, max. 9 kVA
Operational Temperature Range	–32 °C up to +58 °C	–32 °C up to +58 °C
Colour	RAL 6031 HR	RAL 6031 HR
Dimensions and weight Condenser module Width Depth Height Weight	720 mm 720 mm 650 mm 95 kg	920 mm 920 mm 750 mm 140 kg
Evaporator module Width Depth Height Weight	720 mm 720 mm 650 mm 70 kg	920 mm 920 mm 750 mm 90 kg
Heating module Width Depth Height Weight	720 mm 720 mm 650 mm 80 kg	920 mm 920 mm 750 mm 120 kg
Two modules stacked Height	1,300 mm	1,450 mm
Transport	The system is designed with a frame with integrated handles for easy transport, carrying by 4 persons.	

* Geom. centre of tent
** Distance: 7 m

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Mobile Air Conditioning Systems... the Best Solution for your Application



A complete product line is put at the disposal for air conditioning of cabins, containers and tents according to military standard.

We offer an extensive programme of field-proven air conditioning systems with direct evaporation or with glycol as cooling agent – with mains operation or electric generator, with electrical or fuel heating. Further we supply systems which meet the clean room standards for field hospitals and climatic special equipment of any kind for military applications.



A high-performance after-sales service ensures the optimal support for our customers and high operational safety of the systems.

Decades of experience in the various fields of application and an intensive exchange of information with our customers throughout the world all serve to guarantee good co-operation.

If you value know-how, service and all-round safety, ask Weiss Umwelttechnik.



Further information, technical field offices in Germany, subsidiaries and agencies worldwide can be found at

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