



# 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 ZKB 15 Circulated Air System ZKB 20/18 and ZKB 20/18-B – Optional use with integrated fuel heater

- Compact design with transport frame
- Operation as a fresh air or a recirculating air system possible
- Supply air fan
- Condenser air fan
- Scroll compressor
- Air cooling by direct evaporator
- Condenser
- Electric heater
- Electric compartment and control unit
- Supply air hose system

### Additional equipment for ZKB 15-A10

- Filter G3
- Filter box with filters F5 and F7

### Option for ZKB 15-A10

- Air distribution system (inside tent)

### Options for ZKB 20/18 and ZKB 20/18-B

- With fuel heater available
- Multifunctional transport box
- Air distribution system
- H13 Filter box
- Soft starter for compressor



Transport box for accessories (optional)



Plug-in control panel





# 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 self-sealing 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-sealing 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	ZKB 20/18	ZKB 20/18-B with fuel heater
<b>Capacities</b>				
Total cooling capacity (refrigerant)	10,000 W (R134A)	11,000 W (R134A)	max. 18,000 W (R134A)	max. 18,000 W (R134A)
Heating capacity	7,200 W (electrical)	7,200 W (electrical)	7,200 W (electrical)	max. 30,000 W (fuel)
<b>Air Volume</b>				
Supply air	850 m³/h outside air	1,500 m³/h	max. 2,000 m³/h	
Condenser air volume flow	2,500 m³/h	2,500 m³/h	max. 3,000 m³/h (speed controlled)	
<b>Filtering</b>				
Step 1	G3 (EN 779)	optional	G4 (EN 779) in unit	
Step 2	F5 (EN 779) in add. filter box	optional	optional F7 (EN 779) in unit	
Step 3	F7 (EN 779) in add. filter box	optional	optional H13 (EN 779) in add. filter box	
<b>EMC</b>	according to 89336/EWG EN 50081 and EN 50082			
<b>Sound pressure level</b>				
Inside tent	55/60* dB (A)			
Outside tent	63** dB (A)			
<b>Power Supply</b>	400 V, 3 Ph, 50 Hz			
<b>Power Consumption</b>	max. 9 kVA			
<b>Operational Temperature Range</b>	-32 °C up to +49 °C		-32 °C up to +60 °C	
<b>Colour</b>	RAL 6031 HR			
<b>Dimensions and weight</b>				
Width	1,845 mm	1,750 mm	1,750 mm	
Depth	965 mm	979 mm	979 mm	
Height	1,025 mm	884 mm	884 mm	
Weight	300 kg	350 kg	400 kg	
<b>Transport</b>	The system is designed with a frame with castors and handles for easy moving by one person or carrying by six persons.		The system is designed with a transport frame with fork lift pockets and is stackable.	

\* Geometric centre of tent  
\*\* At distance of 7 m

We reserve all rights to make technical modifications without notice!



	ZKB 10/6 MFA	ZKB 15/10 MFA
<b>Capacities</b>		
Total cooling capacity (refrigerant)	6,000 W (R134A)	11,000 W (R134A)
Heating capacity (electric heater)	3,000 W	7,200 W
Heating capacity (heating module)	10,000 W	30,000 W
	Fuel: Diesel (F54)	Fuel: Diesel (F54)
	Water-Glycol Mixture (50/50)	Water-Glycol Mixture (50/50)
<b>Air Volume</b>		
Supply air	1,000 m³/h	1,500 m³/h
Condenser air volume flow	2,000 m³/h	3,000 m³/h
<b>Filtering</b>		G4 (EN 779) further qualities as option
<b>Sound pressure level</b>		
Inside tent		approx. 55–60* dB (A)
Outside tent		approx. 60–65** dB (A)
<b>EMC</b>		according to 89336/EWG EN 50081 and EN 50082
<b>Power Supply</b>	230 V, 1 Ph, 50 Hz	400 V, 3 Ph, 50 Hz, right hand rotary field,
<b>Power Consumption</b>	max. 4 kVA	max. 9 kVA
<b>Operational Temperature Range</b>	-32 °C up to +58 °C	
<b>Colour</b>	RAL 6031 HR	
<b>Dimensions and weight</b>		
<b>Condenser module</b>		
Width	720 mm	920 mm
Depth	720 mm	920 mm
Height	650 mm	750 mm
Weight	95 kg	140 kg
<b>Evaporator module</b>		
Width	720 mm	920 mm
Depth	720 mm	920 mm
Height	650 mm	750 mm
Weight	70 kg	90 kg
<b>Heating module</b>		
Width	720 mm	920 mm
Depth	720 mm	920 mm
Height	650 mm	750 mm
Weight	80 kg	120 kg
<b>Two modules stacked</b>		
Height	1,300 mm	1,450 mm
<b>Transport</b>	The system is designed with a frame with integrated handles for easy transport, carrying by 4 persons.	

\* Geometric centre of tent  
\*\* At distance of 7 m

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# Mobile Air Conditioning Systems ... the best solution for your use



A complete product line is available for air conditioning cabins, containers and tents according to military standards.

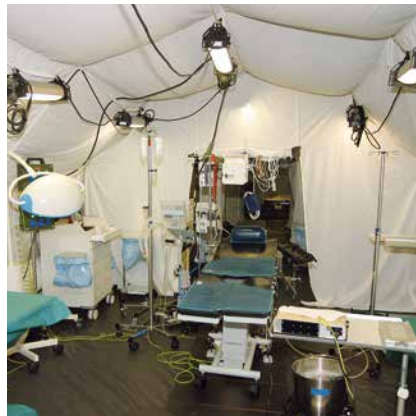
We offer a comprehensive program of practically-proven air conditioning systems and tent air conditioning systems with direct evaporation or using brine as coolant – operated by mains power or generator, with electrical heating or fuel heating. We additionally supply systems for satisfying clean-room requirements for the medical field, as well as special solutions of all types for military applications.



The systems and their individual parts are furnished with NATO stock numbers (NSN) and in many cases have a special Technical Documentation.

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  
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