



EN/INSTRUCTION MANUAL

SILENCIO 2 HV

MARKET SEGMENTS



CONSTRUCTION



AGRICULTURE/
FORESTRY



RV



PUBLIC SAFETY



UTILITY/CARGO



PERSONAL
TRANSPORT



AMBULANCE

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Refer to the safety information sheet supplied with the product, and to the risks and preventive measures indicated in the form of pictograms.

1 Prior information

1.1 Instructions for use

This document contains information necessary to operate your equipment.
Please print and keep this documentation in a safe place for future reference.

1.1.1 Intended Use

Eberspächer Kalori equipment is designed to ventilate, heat and/or cool passenger compartments and cabins, or to de-ice the windscreen and windows of the vehicle.

The equipment is intended for professional use in L, M, N, O, T, C, R and S vehicles and in machines such as construction engineering machines, forestry machines, handling machines, tower cranes, mining machines or airport vehicles.

For all other professional uses, the installation must be carried out by a professional installer, who verifies that the equipment corresponds to the application.

1.1.2 Unauthorised use

Modifications to the equipment are strictly prohibited. Any unintended use and any other use of the equipment beyond or different from the intended use is considered to be misuse. The warranty becomes null and void and Eberspächer Kalori is no longer liable.

This product is not intended for domestic use.

Eberspächer Kalori equipment is not intended for the following applications:

- Long-term operation, for example for air conditioning or heating in homes, garages or containers

1.2 Installation instructions

Failure to comply with the warnings and safety instructions invalidates the warranty and means that Eberspächer Kalori cannot be held liable.

The equipment must not be installed and used:

- in extremely dusty environments
- in an aggressive environment
- in the event of excessive vibrations of the machine or the vehicle
- in a way that does not comply with the regulations in force
- without full or partial compliance with the operating or assembly instructions
- without maintenance and/or use of original spare parts

- in such a way as to damage its environment
- so as not to be damaged by the environment.

The equipment should only be installed in the position indicated in the instruction manual.

The installation of this equipment in the vehicle or machine must ensure that it is protected against reasonably foreseeable impacts (e.g. kicking, etc.).

The installation, use and maintenance of the equipment must comply with the regulations in force in the country of use.

This equipment cannot be operated alone and must be supplemented by other components such as a diffuser, a control panel.

The equipment should be stored in a dry place.

Electrical parts that are not sealed must be protected against water and dust.

The equipment must be installed with an air filter upstream.

Ensure that all electrical components involved in the installation of the equipment are correctly sized.

Complete the electrical connections necessary for the wiring of the equipment, carefully following the instructions in the manual. Provide electrical protection upstream of the equipment.

Electrical protections (disconnecting device, fuses) are not supplied with the equipment.

When integrating, check that the new air supply complies with the applicable regulations.

Dual voltage equipment must be powered by 2 different power sources. The 12Vdc and 24Vdc products must be powered by batteries.

Power cables upstream of the equipment should be clamped.

This equipment is intended for indoor mounting and must not be subjected to weather or dust.

1.3 Legal regulation

Legal regulations are mandatory and must also be complied with in countries where there are no special regulations.

The manufacturer follows a policy of continuous development and, in this respect, reserves the right to make changes and improvements to the documentation and equipment without prior notice.

Compliance with legal provisions and all instructions and instructions contained in this document, as well as with the safety information supplied with the product, is a prerequisite to any warranty

and liability claim.

Repairs by unauthorized third parties and/or with non-original spare parts are not permitted. This will result in the expiration of the equipment approval and may result in the expiration of the vehicle or machine operating license.

1.4 Type approval

For some components, the Centre National de Réception des Véhicules (National Vehicle Approval Centre) has issued a type approval according to ECE-R10 for installation in motor vehicles, with an official type approval marking noted on the component's nameplate. Eberspächer Kalori products should only be used in vehicles fully approved by the manufacturer.

1.5 CE declaration of conformity

We hereby declare that the version of the product we are placing on the market complies with the applicable provisions of the following European directives:

- CEM Directive 2014/30/EU



- Machinery Directive 2006/42/CE

1.6 UKCA declaration of conformity

We hereby declare that the version of the product we are placing on the market complies with the applicable provisions of the following UKCA directives:

- The Electromagnetic Compatibility Regulations 2016
- The Supply of Machinery (Safety) Regulations 2008



1.7 Cleaning and maintenance instructions

Wash with a damp cloth.

1.8 Note on environmental protection



WEEE Directive 2012/19/EU

Electrical and electronic devices should not be disposed of with household waste. Consumers are required by law to return electrical and electronic equipment at the end of its life to the public collection points provided for this purpose or to the point of sale. The details of this obligation are defined by the national legislation of the country concerned. The symbol on the product, the instruction manual or the packaging indicates that a product is subject to these regulations.

1.9 Technical support

If you have any technical questions or problems with the equipment, please contact your dealer.

2 Glossary

HV	Fan/Radiator
HVAC	Fan/Radiator/Evaporator
VAC	Fan/Evaporator
EHV	Fan/PTC elements
EHVAC	Fan/PTC elements/Evaporator
EHHV	Fan/PTC elements/Radiator
EHHVAC	Fan/PTC elements/Radiator/Evaporator
E	Equipment without diffuser side
G	Equipment with diffuser grille
ED2	Equipment with 2-outlet diffuser side
ED4	Equipment with 4-outlet diffuser side
ED6	Equipment with 6-outlet diffuser side
KC	Equipment with adjustable and closable outlets
KG	Equipment with adjustable outlets
FAI	Equipment with control
Multifluks	Equipment with flap diffusion

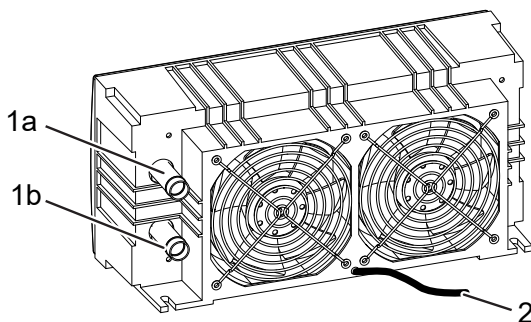
3 List of equipment concerned

If your equipment is not described in the table below, please contact your dealer for specific documentation. The attached installation manual is for the following part numbers:

Part number	Description	Voltage			Heating connection	
		HV	12V	24V	Ø16	Ø22
8300 12014030	SILENCIO 2 HV G 12V Ø16 BL BLACK	●	●		●	
8300 12014130	SILENCIO 2 HV G 24V Ø16 BL BLACK	●		●	●	
8300 12014038	SILENCIO 2 HV G 12V Ø22 BL BLACK	●	●			●
8300 12014138	SILENCIO 2 HV G 24V Ø22 BL BLACK	●		●		●

4 Product information

4.1 Overview



No	Description
1a	Radiator outlet
1b	Radiator intake
2	Electrical connection

4.2 Technical data

MODEL	Silencio 2	
Coolant	Water and antifreeze mixture	
Heating capacity	5500 W - 18770 BTU/hr	
Air flow	250m ³ /hr - 147 CFM	
Rated voltage (+/-10%)	12V	24V
Max. Fan consumption ⁽¹⁾	16W	
Operating temperature range	-20 / +40°C [-4 / +104°F]	
Storage temperature range	-30 / +70°C [-22 / +158°F]	
Maximum permissible pressure	2 bar	
Fuse ⁽²⁾	2A	2A
Weight	1.5 kg - 3.3 lbs	

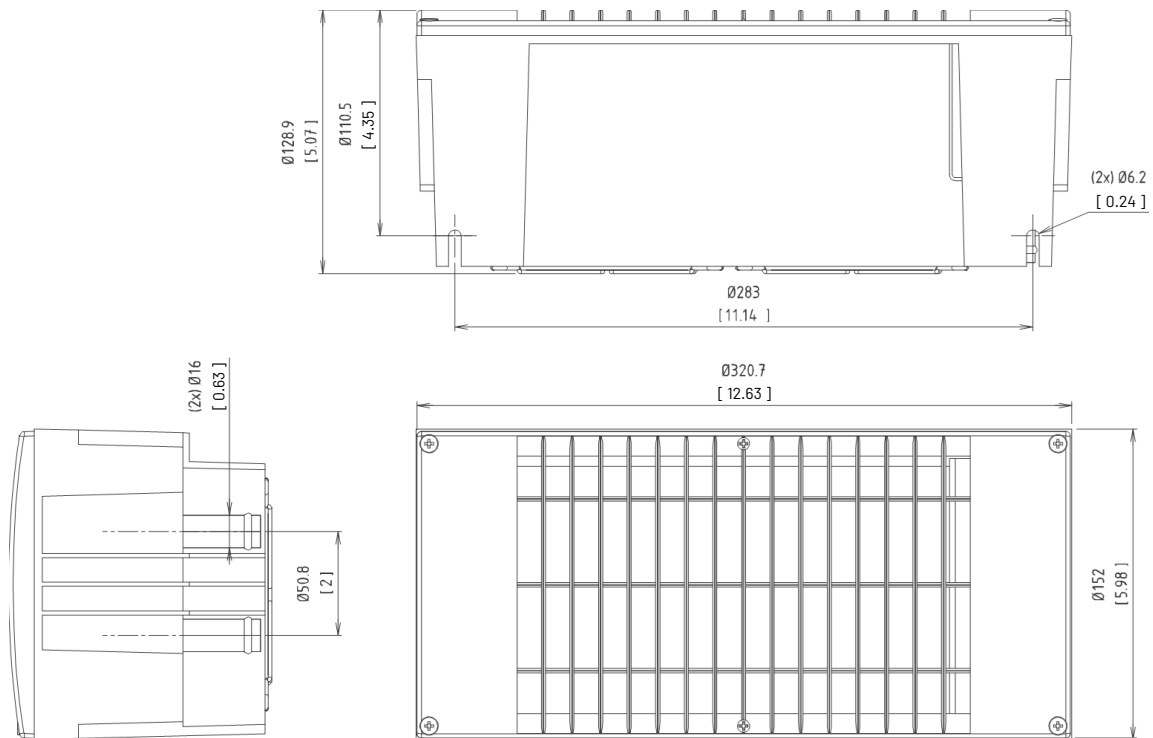
(1) Inrush current can vary from 1 to 10 times the rated current of the product depending on integration and operating conditions. To be checked on the vehicle.

(2) Must be checked following vehicle installation.

Use of the equipment outside the specified technical data may result in malfunctions.

The technical data must be observed at all times.

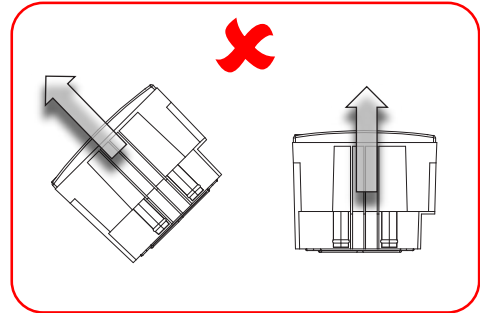
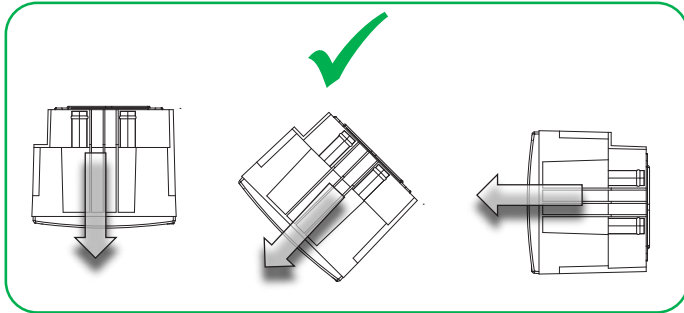
4.3 Main Dimensions




5 Installation

Installation equipment is not included in the scope of supply. Mounting accessories can be ordered separately. Provide sufficient intake area so as not to impair the equipment's airflow.

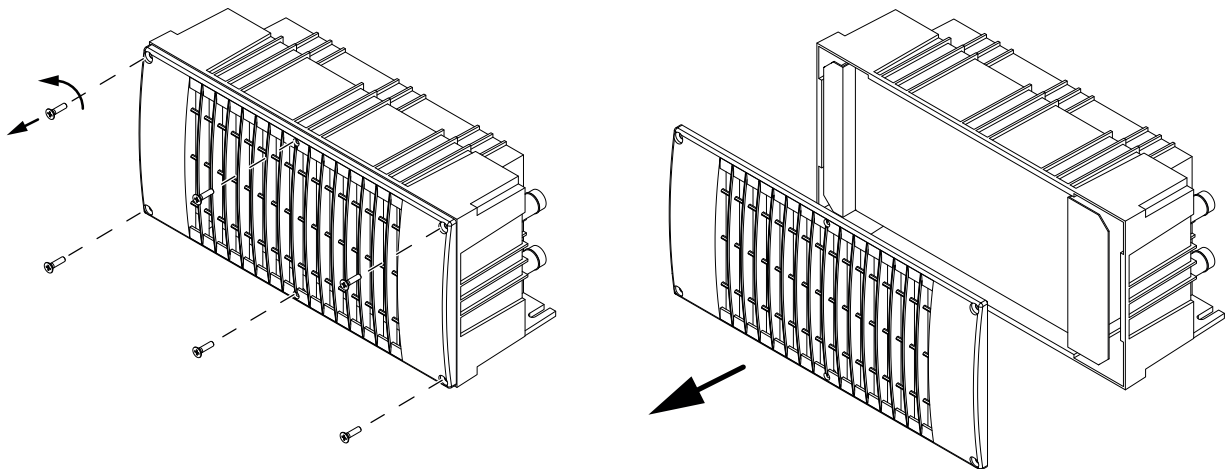
5.1 Installation position



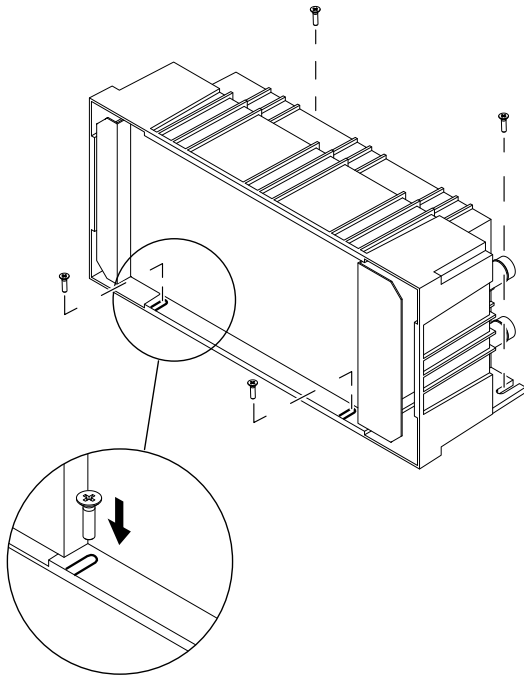
 : direction of air flow.

5.2 Attachment of equipment

→ Unscrew the front panel and remove it.



→ Drill out the unit and screw on the heater with 4 screws.

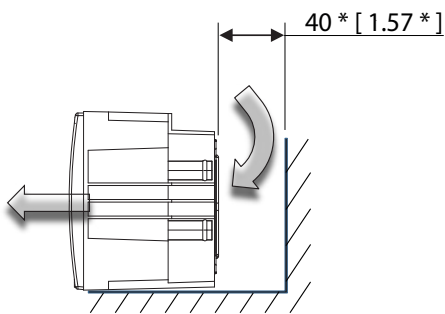


- Tightening torque 5 Nm.
- Min. Bolt class 8.8

→ Install and screw on the front panel.

Insufficient bolt quality or too low or too high a torque can have a negative effect on the equipment.
The number of attachment points to be used depends on the conditions under which the equipment will be used.

It is necessary to allow a space of 40 mm [1.57 in] to be allowed to draw in the equipment.



*: min.

5.3 Connection to heater

5.3.1 For Ø16

Only use an inner hose with Ø16 with spring clamps (to be determined according to the hose used).

5.3.2 For Ø22

Only use an inner hose with Ø22 with spring clamps (to be determined according to the hose used).

5.4 Electrical connection

5.4.1 Fan

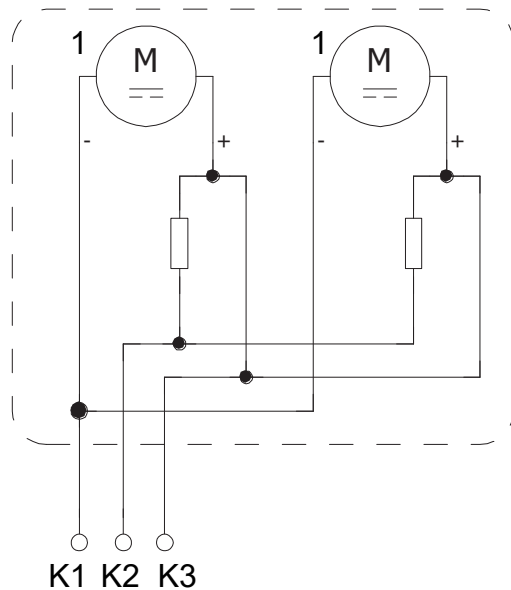
The equipment is supplied with bare wires.

Before installation, an electrical connector must be installed on the equipment.

→ Cable meaning:

- Orange: Low fan speed.
- Red: High fan speed.
- Black: Ground.

5.4.2 Electrical diagram



No	Description
K1	Black wire
K2	Orange wire
K3	Red wire
1	Fan

6 Maintenance

The following maintenance checklist should be carried out by qualified personnel. The frequencies indicated are indicative and must be adapted according to the environment.

Contact your dealer in case of a failure detected during maintenance.

Every month

	HV
Clean and/or replace the air filter(s)	●

Every six months

	HV
Check that the fan(s) is (are) still able to operate.	●
Check the tightness of the various screws and fittings.	●
Check for corrosion of metal parts, housings, screws and inserts. Change these parts if necessary.	●
Check the integrity/tightness of all electrical parts: power cables, ground cable, grommets, connectors, lugs, fan, motor resistor, protective equipment such as fan thermal fuses, etc. (non-exhaustive list).	●
Check that the heat exchangers are not susceptible to clogging by dusty/polluted air.	●

7 Repair

Malfunction	Possible cause	Solution	HV
Poor ventilation	Clogged air intake	Check the heat exchanger for dirt and clean if necessary	●
		Check the air filter for dirt and replace if necessary	●
	Blowing out clogged air	Check air diffusion for dirt and clean if necessary	●
	Fan off	Check the electrical connections and replace if necessary	●
		Check the fuse and replace if necessary	●
	End of life of the fan	Contact your dealer, see the spare parts list for the part number to order	●
	Faulty instrumentation and control	Check the instrumentation and control and replace if necessary	●
Low heating capacity	Faulty power supply	Check the fuse and replace if necessary	●
	Blocked glycol water heating circuit	Contact your dealer	●
	Faulty ventilation	See "Poor ventilation" malfunction	●
	Faulty instrumentation and control	Check the instrumentation and control and replace if necessary	●
	Faulty power supply	Check the fuse and replace if necessary	●
Abnormal noise and/or vibration		Turn off the equipment and contact your dealer	●

8 CE - Declaration of conformity & Declaration of incorporation of a quasi-machine



Pusignan, 21/11/22

PART NUMBER 8300 40130000 OD / EN / 11.2022

CE - Declaration of conformity & Declaration of incorporation of a quasi-machine

The products of the family SILENCIO 2 HV

- are compliant with the directive CEM 2014/30/UE :
EN 61000-6-3, EN 61000-6-1

The products are delivered with A CE marking for this purpose.

- Comply with the Machinery Directive 2006/42/CE Annex I paragraphs 1.1.5, 1.3.1, 1.3.2, 1.3.4, 1.5.10, 1.5.11, 1.7:
 - EN 60204-1 Septembre 2018 paragraphs 4.1, 4.2.1, 4.3, 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.5, 4.6, 6.1, 6.2, 6.3, 7.1, 7.2.1, 7.2.3, 7.2.4, 7.2.8, 7.3.1, 7.4, 7.5, 7.6, 7.7, 8.1, 8.2, 12.1, 12.2, 12.3, 12.4, 12.6, 13.1.3, 13.2.1, 13.2.2, 13.2.3, 13.5.1, 14.1, 14.2, 14.3, 16, 17, 18

Such equipment is partly completed machinery and must not be put into service until the final machinery in which it is to be incorporated has been declared to comply with the relevant provisions of the Machinery Directive 2006/42/CE

Eberspaecher Kalori undertakes, following a duly substantiated request from the national authorities, to transmit the relevant information concerning such partly completed machinery.

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General Manager

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Eberspächer Kalori S.A.S. au capital de 350 015€
SIRET 443 021 522 00018
APE 2932Z No intracommunautaire FR66 443 021 522
RCS LYON 443 021 522

9 UKCA - Declaration of conformity & Declaration of incorporation of a quasi-machine



Pusignan, 28/11/22

PART NUMBER 8300 40135006 OC / EN / 11.2022

UKCA - Declaration of conformity & Declaration of incorporation of a quasi-machine

The products of the family SILENCIO 2 HV

- are compliant with the directive "Electromagnetic Compatibility Regulations 2016" :
EN 61000-6-3, EN 61000-6-1

The products are delivered with A UKCA marking for this purpose.

- Comply with Annex I, paragraphs 1.1.5, 1.3.1, 1.3.2, 1.3.4, 1.5.10 , 1.5.11, 1.7 of the directive machine "Supply of Machinery (Safety) Regulations 2008" :
 - EN 60204-1 Septembre 2018 paragraphs 4.1, 4.2.1, 4.3, 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.5, 4.6,6.1, 6.2, 6.3,7.1, 7.2.1, 7.2.3, 7.2.4, 7.2.8, 7.3.1, 7.4, 7.5, 7.6, 7.7,8.1, 8.2,12.1, 12.2, 12.3, 12.4, 12.6,13.1.3, 13.2.1, 13.2.2, 13.2.3, 13.5.1,14.1, 14.2,14.3,16, 17, 18

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