A WORLD OF COMFORT





EN/INSTRUCTION MANUAL

A.D.T. 350 A.D.T. 452 A.D.T. 750



MARKET SEGMENTS





AGRICULTURE/ FORESTRY



UTILITY/CARGO



PERSONAL TRANSPORT



RV



PUBLIC SAFETY



AMBULANCE



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- **6 MAINTENANCE**
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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

Eberspaecher 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 Eberspaecher Kalori is no longer liable.

This product is not intended for domestic use.

Eberspaecher 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 Eberspaecher 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.

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.

Power cables upstream of the equipment should be clamped.

For wall vents > 60VDC:

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

Equipotential bonding cables with a cross-section of less than 4 mm 2 must be mechanically protected during product integration.

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. Eberspaecher Kalori products may only be used in vehicles that are fully approved by the customer.

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

CE

- 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.

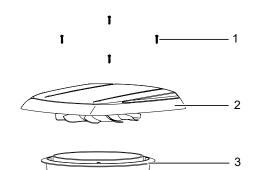
1.9 Technical support

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



2 A.D.T 350

2.1 Overview



| No | Description |
|----|-------------|
| 1 | x4 bolts |
| 2 | Headset |
| 3 | Bracket |

2.2 Technical data

| MODEL | | ADT 350 | |
|-------------------------------------|------------------------------|---------------------------------|---------------------------------|
| Part number | 8300 12140406 | 8300 12140405 | 8300 12140410 |
| Rated voltage (+/-10%) | 12V | | 24V |
| Air flow | 629m³/hr - 356 CFM | 315m ³ /hr - 178 CFM | 629m ³ /hr - 356 CFM |
| Max. Fan consumption ⁽¹⁾ | 72W | 37W | 73W |
| Operating temperature range | -20 / +40°C [-4 / +104°F] | | |
| Storage temperature range | -30 / +70°C [-22 / +158°F] | | |
| Fuse ⁽²⁾ | 10A | 5A | 5A |
| Weight | | 1.5 kg - 3.3 lbs | |

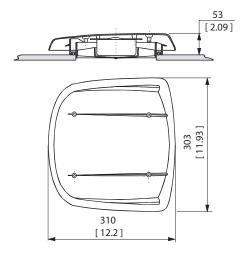
(1) Inrush current can vary from 1 to 10 times the rated current of the product depending on integration and operating conditions. To be checked on the vehicle.

(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.



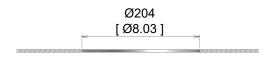
2.3 Main Dimensions



2.4 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.

2.4.1 Cut off the roof of the vehicle



2.4.2 Prepare the surfaces to be sealed

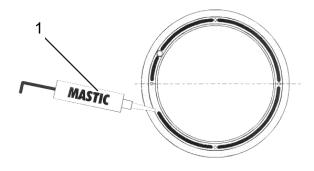
ightarrow Clean the surfaces to be sealed.

ightarrow Use cleaning and bonding agents compatible with ASA plastic.

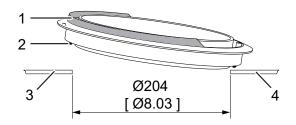
2.4.3 Assembly steps

1) seal and secure the fan support.

 \rightarrow Apply a gasket (1).

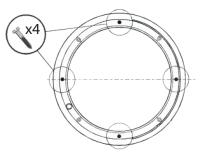


the front of the vehicle (3).



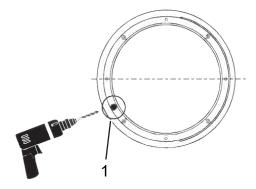
| No | Description |
|----|------------------|
| 1 | Deflector |
| 2 | Putty |
| 3 | Front of vehicle |
| 4 | Rear of vehicle |

- → Secure the bracket to the roof from the outside of the vehicle with 4 screws (not supplied). The screw holes in the support have a diameter of:
 - Ø3,4[Ø0.13]



2) Feed wire

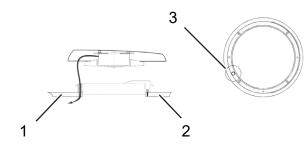
→ Drill the vehicle roof using an Ø8 mm forest using the existing hole (1) on the support.



ightarrow Position the bracket (2) in the Ø204 hole, deflector (1) toward



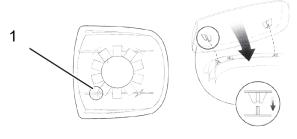
→ Route the fan supply wire through the existing hole (3) in the bracket and through the hole previously drilled in the roof.



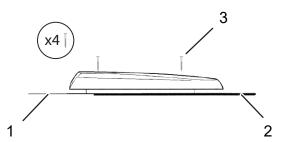
| No | Description |
|----|-------------------|
| 1 | Rear of vehicle |
| 2 | Front of vehicle |
| 3 | Feed wire routing |

3) Attach the helmet.

→ Position the helmet on the mounting bosses using the 4 centering vanes (1).



→ Secure the helmet to the bracket using the 4 supplied screws (3).



| No | Description |
|----|------------------|
| 1 | Rear of vehicle |
| 2 | Front of vehicle |
| 3 | Screws |

2.5 Electrical connection

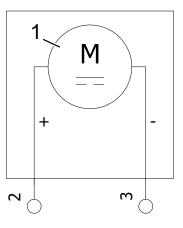
2.5.1 Blower

The equipment is supplied with bare wires. Before installation, an electrical connector must be installed on the equipment.

Meaning of wire color:

- Blue wire: +12V or +24V.
- Black wire: Ground.

2.5.2 Electrical diagram



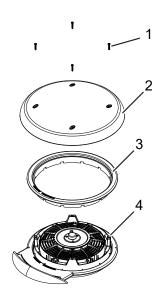
| No | Description |
|----|------------------------|
| 1 | Fan |
| 2 | Blue wire / 12V or 24V |
| 3 | Black wire / ground |



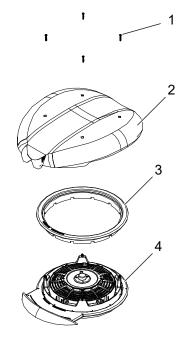
3 A.D.T. 452 / A.D.T. 750

3.1 Overview

A.D.T. 452



A.D.T. 750



| No | Description |
|----|-------------|
| 1 | Screws |
| 2 | Headset |
| 3 | Packaging |
| 4 | Bracket |



3.2 Technical data

| MODEL | A.D.T. 452 | | | |
|-------------------------------------|------------------------------|---------------|---------------|---------------|
| Part number | 8300 12140456 | 8300 12140415 | 8300 12140416 | 8300 12140458 |
| Rated voltage (+/-10%) | 12V | 1 | 24 | 4V |
| Air flow | 629 m3/h – 356 CFM | | | |
| Max. Fan consumption ⁽¹⁾ | 72W | V | 73 | 5W |
| Operating temperature range | -20 / +40°C [-4 / +104°F] | | | |
| Storage temperature range | -30 / +70°C [-22 / +158°F] | | | |
| Fuse ⁽²⁾ | 10A | l l | 5 | A |
| Weight | 1.8 kg – 4 lb | | | |

| MODEL | A.D.T. 750 | |
|-------------------------------------|------------------------------|---------------|
| Part number | 8300 12140000 | 8300 12140100 |
| Rated voltage (+/-10%) | 12V | 24V |
| Air flow | 629 m3/h | – 356 CFM |
| Max. Fan consumption ⁽¹⁾ | 72W | 73W |
| Operating temperature range | -20 / +40°C [-4 / +104°F] | |
| Storage temperature range | -30 / +70°C [-22 / +158°F] | |
| Fuse ⁽²⁾ | 10A | 5A |
| Weight | 2 kg - 4.4 lb | |

(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.

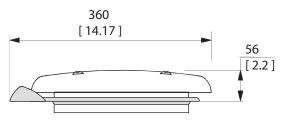
(2) Must be checked following vehicle installation.

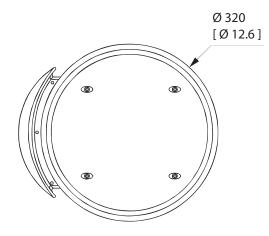
Use of the equipment outside the specified technical data may result in malfunctions. The technical data must be observed at all times.



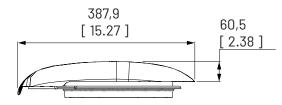
3.3 Main Dimensions

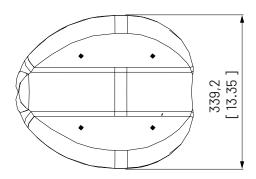
A.D.T. 452





A.D.T. 750

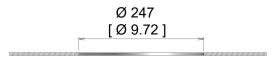




3.4 Installation

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.

3.4.1 Cut off the roof of the vehicle



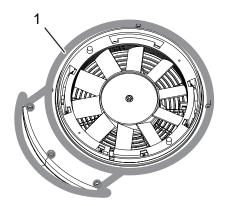
3.4.2 Prepare the surfaces to be sealed

 \rightarrow Clean the surfaces to be sealed.

ightarrow Use cleaning and bonding agents compatible with ABS plastic.

3.4.3 Assembly steps

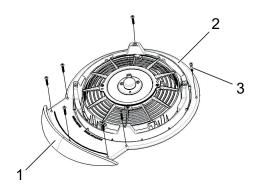
1) seal and secure the fan support.
→ Apply a gasket (1).



 \rightarrow Mount the bracket with 7 screws (not supplied). The screw holes in the support have a diameter of:

- Ø4,2[0.16].

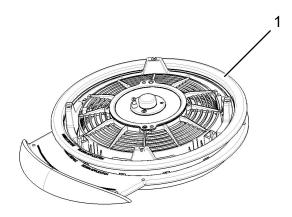
Deflector (1) facing the front of the vehicle.



| No | Description |
|----|------------------|
| 1 | Front of vehicle |
| 2 | Rear of vehicle |
| 3 | Screws |



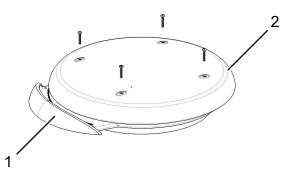
2) Position the ring gear.



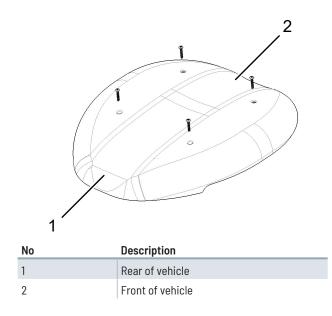
The ring gear (1) will be locked when the helmet is attached.

3) Secure the helmet with 4 screws supplied.

A.D.T. 452 :



A.D.T. 750 :



3.5 Electrical connection

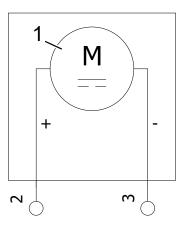
3.5.1 Blower

The equipment is supplied with bare wires. Before installation, an electrical connector must be installed on the equipment.

Meaning of wire color:

- Blue wire: +12V or +24V.
- Black wire: Ground.

3.5.2 Electrical diagram

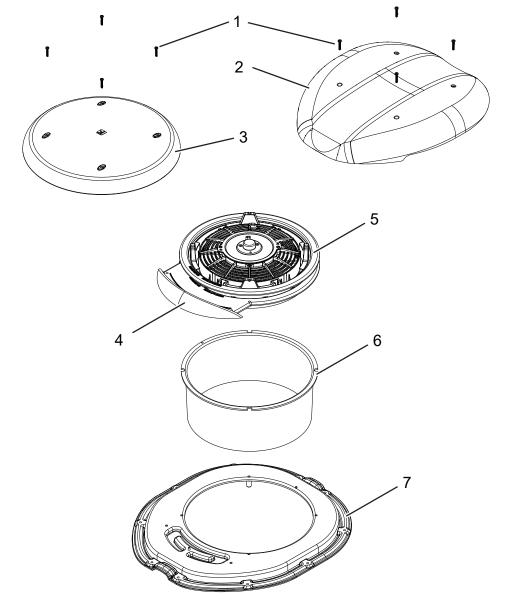


| No | Description |
|----|------------------------|
| 1 | Fan |
| 2 | Blue wire / 12V or 24V |
| 3 | Black wire / ground |



4 Easy Fit

4.1 Overview

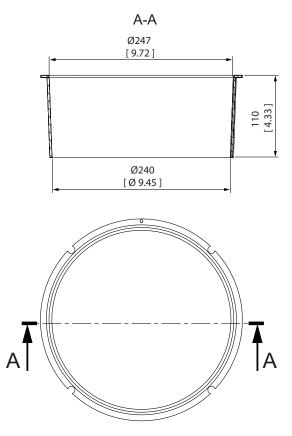


| No | Description | Part number |
|----|--------------------|--|
| 1 | Screws | |
| 2 | Headset A.D.T. 750 | |
| 3 | Headset A.D.T. 452 | |
| 4 | A.D.T. support | |
| 5 | Crown A.D.T | |
| 6 | A.D.T channel | 8300 34017042 |
| 7 | A.D.T. socket | For Sprinter: 8300 34017041 For Master: 8300 34017079 For Ducato / Boxer / Jumper: 8300 34017130 |

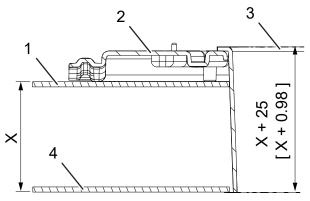


4.2 Main Dimensions

Channel A.D.T.

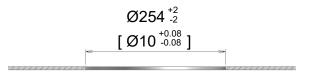


With base A.D.T.



| No | Description |
|----|----------------|
| 1 | Roof |
| 2 | Mounting plate |
| 3 | Channel |
| 4 | Interior trim |

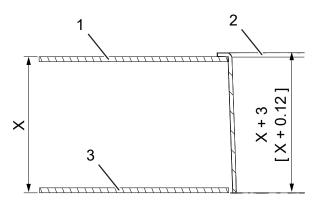
4.3.2 Cut off the roof of the vehicle



4.3 Preparation for assembly

4.3.1 Adjust the height of the channel ADT

Without flange A.D.T.



| No | Description |
|----|---------------|
| 1 | Roof |
| 2 | Channel |
| 3 | Interior trim |

4.3.3 Prepare the surfaces to be sealed

ightarrow Clean the surfaces to be sealed.

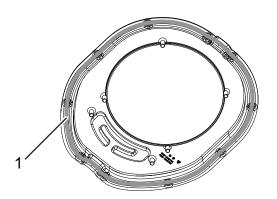
 \rightarrow Use cleaning and bonding agents compatible with ABS plastic.



4.4 Assembly steps

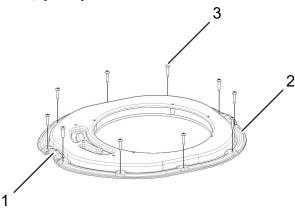
4.4.1 Seal and secure the bracket ADT

 \rightarrow Apply a gasket (1).

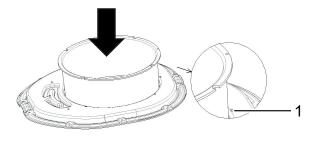


→ Screw on the base (screws (3) not supplied). The screw holes in the support have a diameter of:

- Ø4,4[Ø0.17].



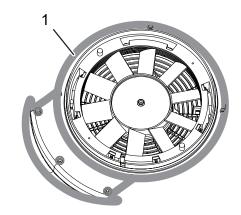
Position the channel A.D.T.



| No | Description |
|----|--------------|
| 1 | Locating pin |

The ADT channel will be blocked after the fan bracket is attached.

4.4.3 Seal and secure the fan support \rightarrow Apply a gasket (1).



→ Mount the bracket with 7 screws (not supplied). Deflector (1) facing the front of the vehicle.

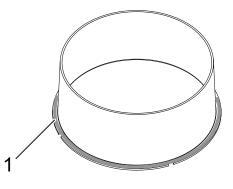
| 1 |
|---|

| No | Description |
|----|--------------|
| 1 | Locating pin |

| No | Description |
|----|------------------------------------|
| 1 | Rear of vehicle |
| 2 | Front of vehicle |
| 3 | Sprinter: 10 screws. |
| | Master: 8 screws. |
| | Ducato / Boxer / Jumper: 8 screws. |

4.4.2 Seal and secure the channel ADT

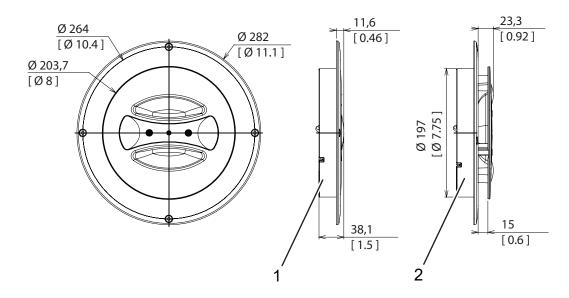
→ Apply sealing mastic (1).





5 Diffuser

5.1 Lateral air diffuser

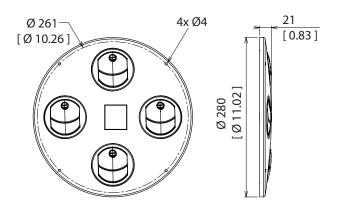


| No | Description |
|----|-------------|
| 1 | Closed |
| 2 | Opened |

Part number

| Single 8300 34003115 | |
|------------------------------|----------|
| With 12 V illumination: 8300 | 34003116 |
| With 24 V illumination: 8300 | 34003120 |

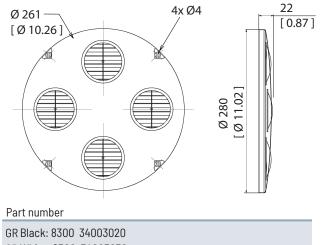
5.2 Diffuser Rondo BR



Part number

BR Black: 8300 34003021 BR White: 8300 34003031 BR Grey: 8300 34003036

5.3 Diffuser Rondo GR



GR Black: 8300 34003020 GR White: 8300 34003030 GR Grey: 8300 34003035



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 six months

| | ADT |
|---|-----|
| 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). | • |

7 Repair

| Malfunction | Possible cause | Solution | ADT |
|---------------------------------|------------------------------------|---|-----|
| Poor ventilation | 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 | • |
| | 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

| Eberspächer | | | | |
|--|---|--|--|--|
| | Pusignan, 28/11/22 | | | |
| | | | | |
| PART NUMBER 8300 40130001 0D / EN / 11.2 | 2022 | | | |
| | | | | |
| <u>CE - Declaration of conformity & Declaration of incorporation of a quasi-machine</u> | | | | |
| | | | | |
| The products of the family A.D.T. 350 / A.D.T | ne products of the family A.D.T. 350 / A.D.T. 452 / A.D.T. 750 | | | |
| Comply with EMC Directi | Comply with EMC Directive 2014/30/UE: | | | |
| ISO 13766, EN 50498, EN 13 | ISO 13766, EN 50498, EN 13309, EN 14982 | | | |
| 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 autho- rities, to transmit the relevant information concerning such partly completed machinery. | | | |
| Technical Manager: Stéphanie LE FAUCHEUF | R - Engineering manager | | | |
| | BONTEMPS Olivier | | | |
| | General Manager | | | |
| Eberspächer Kalori ZI de Mariage - Voie E 69330 Pusignan Phone +33 4 72931010 Fax +33 4 72931019 | Eberspächer Kalori S.A.S. au capital de 350 015€ SIRET 443 021 522 00018 APE 2932Z No intracommunautaire FR66 443 021 522 | | | |
| www.eberspaecher-kalori.com | RCS LYON 443 021 522 | | | |



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

| Eberspächer | | | | |
|--|--|--|--|--|
| Pusignan, 28/11/22 | | | | |
| PART NUMBER 8300 40135007 OC / EN / 11.2022 | | | | |
| UKCA - Declaration of conformity & Declaration of incorporation of a quasi-machine | | | | |
| The products of the family A.D.T. 350 / A.D.T. 452 / A.D.T. 750 | | | | |
| • are compliant with the directive "Electromagnetic Compatibility Regulations 2016" : ISO 13766, EN 50498, EN 13309, EN 14982 | | | | |
| 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 | | | | |
| 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 "Supply of Machinery (Safety) Regulations 2008" | | | | |
| Eberspaecher Kalori undertakes, following a duly substantiated request from the national autho- rities, to transmit the relevant information concerning such partly completed machinery. | | | | |
| Technical Manager: Stéphanie LE FAUCHEUR - Engineering manager | | | | |
| BONTEMPS Olivier General Manager | | | | |
| Eberspächer Kalori ZI de Mariage - Voie E 69330 Pusignan Eberspächer Kalori S.A.S. au capital de 350 015€ Phone +33 4 72931010 SIRET 443 021 522 00018 Fax +33 4 72931019 APE 2932Z No intracommunautaire FR66 443 021 522 www.eberspaecher-kalori.com RCS LYON 443 021 522 | | | | |



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