



[EN/ASSEMBLY INSTRUCTIONS](#)

HK EV04 HVAC FAI HEADLINER

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

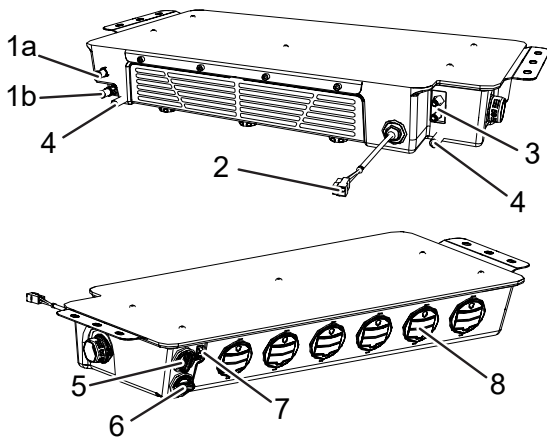
3 List of equipment concerned

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	Type		
		HVAC	12V	FAI
8300 12222012	HK EV04 HVAC FAI 12V Ø16 HEADLINER	●	●	●

4 Product information

4.1 Overview



No	Description
1a	Radiator outlet
1b	Radiator intake
2	AC power and control connector
3	Regulator
4	Condensate connection
5	Fan speed adjustment
6	Temperature control
7	Air conditioning switch
8	Supply air vent

4.2 Technical data

MODEL	HK EVO4 HVAC FAI HEADLINER
Heating capacity	9.5 kW - 32415 BTU/hr
Cooling capacity	8.6 kW - 29344 BTU/hr
Coolant	Water and antifreeze mixture
Refrigerant	R134a / R1234yf
Air flow	1300m ³ /hr - 765 CFM
Rated voltage (+/-10%)	12V
Max. Fan consumption ⁽¹⁾	220 W
Operating temperature range ⁽²⁾	-20 / +50°C [-4 / +122°F]
Storage temperature range	-30 / +70°C [-22 / +158°F]
Maximum allowable pressure - Radiator circuit	2 bar
Maximum allowable pressure low pressure circuit	15 bar
Maximum permissible pressure high pressure circuit	30 bar
Fuse ⁽³⁾	25A
Weight	22.5 kg - 49.6 lb

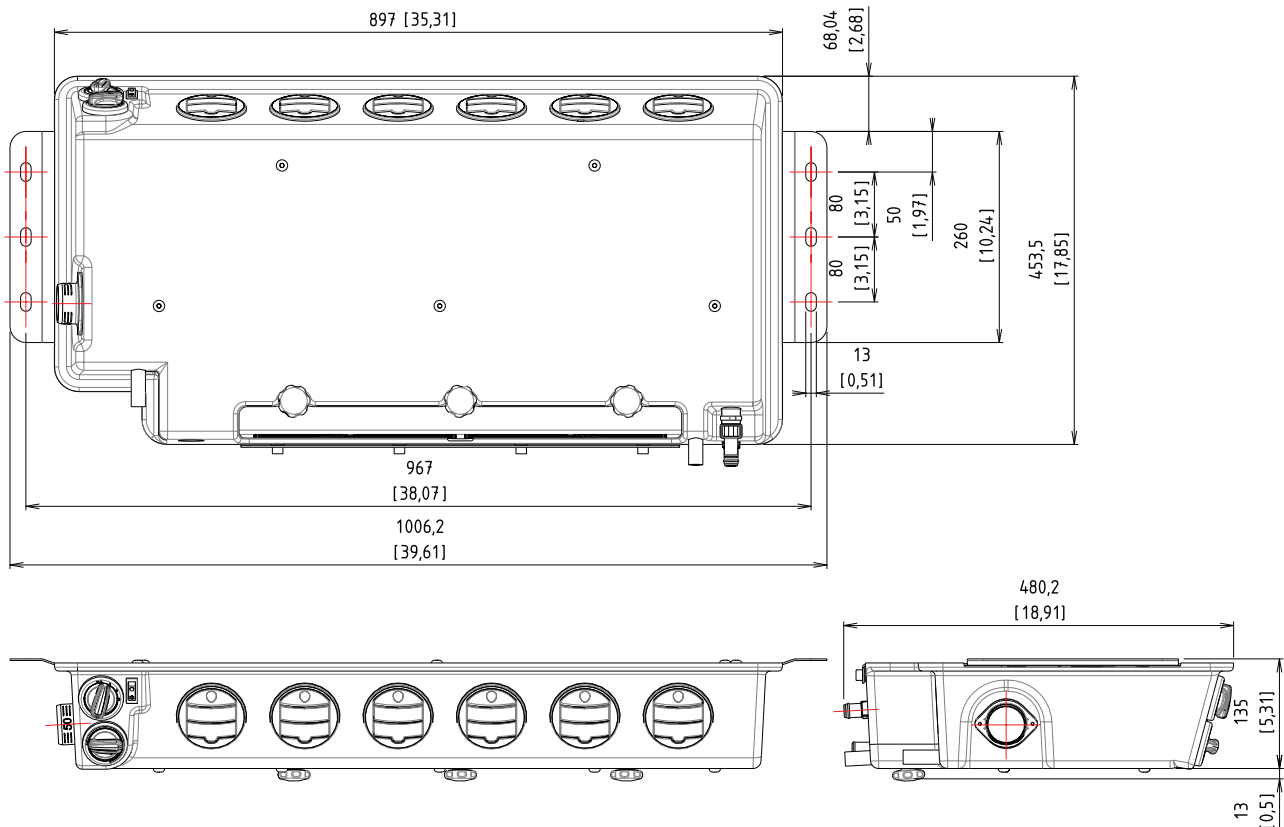
(1) Inrush current can vary from 1 to 10 times the rated current of the product depending on integration and operating conditions. To be checked on the vehicle.

(2) The maximum operating temperature of the equipment depends on its location in the vehicle, as well as the complete air conditioning loop (condenser/compressor, etc.).

(3) 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.

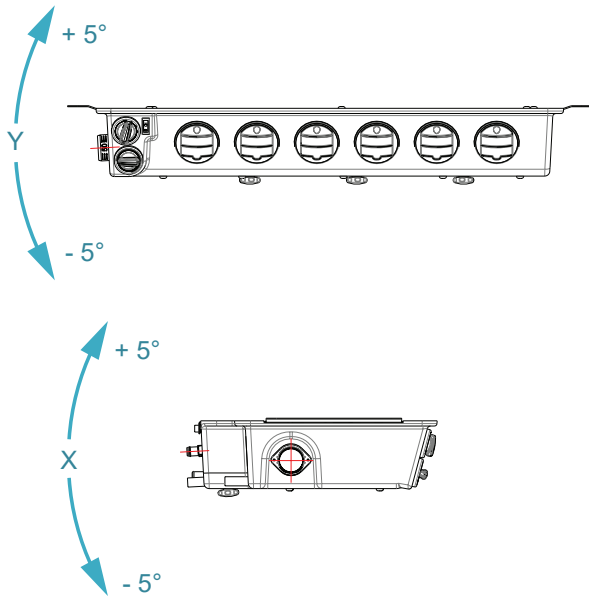
4.3 Main Dimensions



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

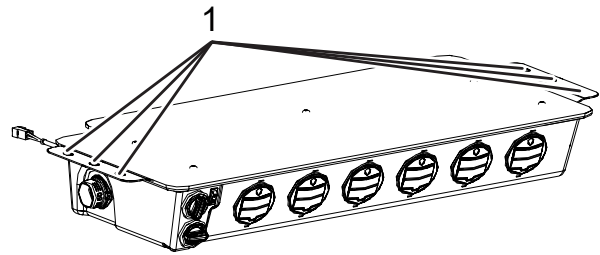


Maximum installation angle

X-axis	+/-5°
Y-axis	+/-5°
Z-axis	360°

5.2 Attachment of equipment

- 6 slotted holes (1) for fixing.



Type of attachment

M8 bolts

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.

5.3 Connection to heater

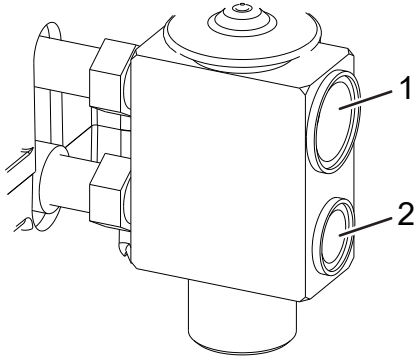
Only use an inner hose with Ø16 with spring clamps (to be determined according to the hose used).

5.4 Connection to expansion valve

Lubricate the seals before assembly with the same oil as the compressor.

Hold the regulator in position while tightening the fittings.

Apply butyl tape to prevent condensation.

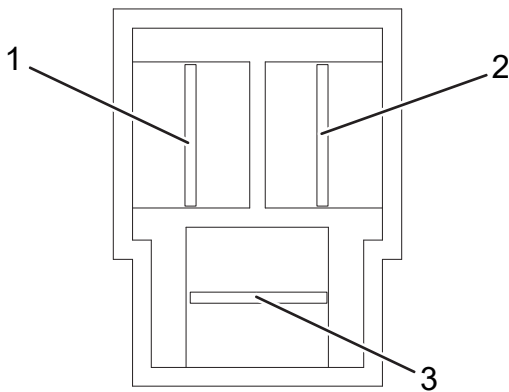


No	Description	Tightening torque (Nm)
1	M10 - 7/8"-18UNS	33
2	M06 - 5/8"-18UNF	16

5.5 Connection to condensate connections

Only use an inner hose with Ø12 with spring clamps (to be determined according to the hose used).

5.6 Electrical connection



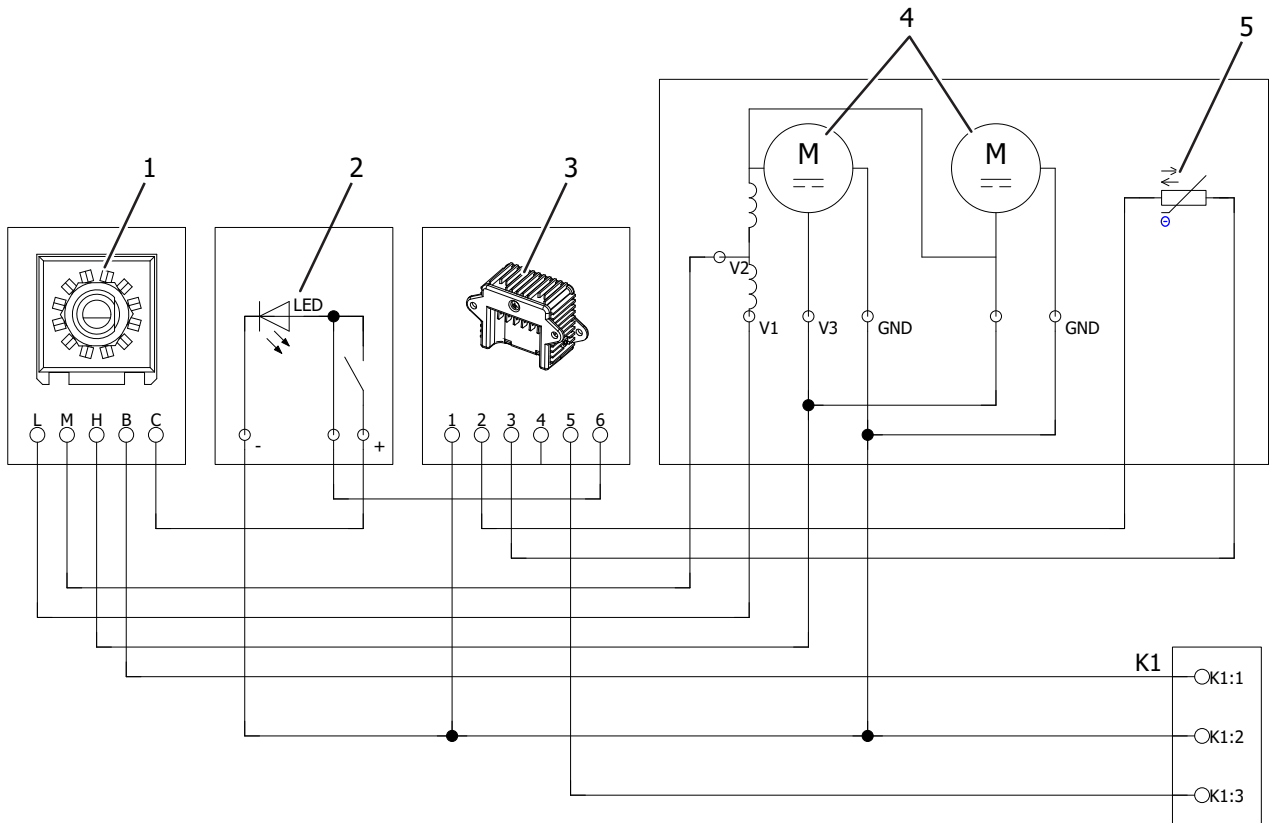
Wire side view

Opposite connector Stocko VV2027.200

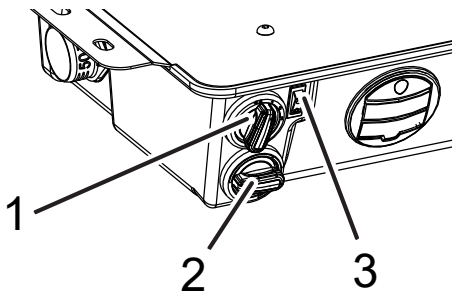
No	Description
1	+12Vdc or +24Vdc
2	Earth
3	Air conditioning control

5.6.1 Equipment with anti-freeze thermostat

See assembly instructions ref 8300 40100050 0.

5.6.2 Electrical diagram


No	Description	No	Description
K1	Power connector	3	Thermostat
1	Fan switch	4	Fan
2	air conditioning switch	5	Antifreeze probe

6 Air temperature and ventilation setting


No	Description
1	Fan speed adjustment
2	Setting the blow-out temperature
3	Temperature setting

7 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

HVAC	
Clean and/or replace the air filter(s)	●
Check that the condensate drains are not blocked.	●

Every six months

HVAC	
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 antifreeze sensor is working properly. Change if necessary.	●
Check that the anti-freeze thermostat (if there is one) is working properly. Change if necessary.	●
Check that the heat exchangers are not susceptible to clogging by dusty/polluted air.	●

Every 5000 hours:

HVAC	
Evaporator to be replaced if used with R1234yf gas	●

8 Repair

Malfunction	Possible cause	Solution	HVAC
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 fan resistor	Check the fan resistor and replace if necessary	●
	Faulty instrumentation and control	Check the instrumentation and control and replace if necessary	●
Faulty power supply	Check the fuse and replace if necessary	●	
Low cooling capacity	Faulty anti-icing sensor	Check the sensor and replace if necessary	●
	Faulty anti-freeze thermostat	Check the thermostat and replace if necessary	●
	Faulty regulator	Contact your dealer	●
	Faulty ventilation	See "Poor ventilation" malfunction	●
	Dirty exchanger(s)	Check the heat exchanger(s) for dirt and clean if necessary	●
	Lack of refrigerant	Check the refrigerant content of the system Carry out a leak test, repair if necessary and re-charge.	●
	Faulty instrumentation and control	Check the instrumentation and control and replace if necessary	●
	Faulty power supply	Check the fuse and replace if necessary	●
Low heating capacity	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	●

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



Pusignan, 28/11/22

PART NUMBER 8300 40130040 OF / EN / 11.2022

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

The products of the family HK EVO4 VAC / HK EVO4 HVAC / HK EVO4 HVAC FAI HEADLINER / HK EVO4 VAC ETXV / HK EVO4 HVAC ETXV

- are compliant with the directive CEM 2014/30/UE :
ISO 13766, EN 50498, EN 13309, EN 14982
EN 61000-6-2 / EN 61000-4-3

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
 - EN 378-1+A1 - octobre 2020, EN 378-2 - avril 2017

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

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

Pusignan, 29/11/22

PART NUMBER 8300 40135044 OC / EN / 11.2022

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

The products of the family HK EVO4 VAC / HK EVO4 HVAC / HK EVO4 HVAC FAI HEADLINER / HK EVO4 VAC ETXV / HK EVO4 HVAC ETXV

- are compliant with the directive "Electromagnetic Compatibility Regulations 2016" :
ISO 13766, EN 50498, EN 13309, EN 14982
EN 61000-6-2 / EN 61000-4-3

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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RCS LYON 443 021 522

