



**HeiCool LITE 24 V DC 1 HE  
9927623**

**HeiCool LITE 230 V AC 1 HE  
9927627**

**Copyright 2025 HEITEC AG.** All rights reserved.

No part of this manual, including the products and/or software described in it, may be reproduced, transmitted, transcribed, stored in any retrieval system, or translated in any language, in any form, or by any means – excluding documentation that is kept by the purchaser for backup purposes – without the express written permission of HEITEC AG.

Every effort has been made to ensure all information contained herein is accurate at the time of printing and is subject to change without notice and should not be construed as a commitment on the part of HEITEC AG. Neither HEITEC AG, its employees, directors, nor officers, are its agents responsible for any damages, direct or consequential, to any and all equipment as a result of use of this product in a configured system.

All warranties expressed or implied are void if the product has (a) been repaired, damaged, modified, or altered in any way, unless such repair, modification or alterations are authorized in writing by HEITEC AG; or (b) the serial number of the product is defaced or missing.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies and are used only for identification or explanation.

**Any changes or modifications to this product not expressly approved by the manufacturer could void any assurances of safety or performance.**

## Document's History

Version	Datum	Description
1.0	April 2025	Initial version of the document created

# Table of Contents

- 1. Introduction .....4**
  - 1.1 HEITEC Electronic Business Unit.....4
  - 1.2 Applicability .....4
  - 1.3 Intended Application.....4
- 2 Symbols used in this document .....5**
- 3 Safety .....6**
  - 3.2 General safety precautions .....6
  - 3.3 Grounding .....6
- 4 HeiCool LITE Components .....7**
- 5 Installation .....8**
  - 5.1 Inspection of the HeiCool LITE .....8
  - 5.2 Mounting of the HeiCool LITE .....8
  - 5.3 Powering of the HeiCool LITE.....9
- 6 Technical Data .....10**
- 7 Dimensions/ Drawings .....11**
- 8 Declarations .....12**
  - 8.1 Declaration of Conformity .....12
  - 8.2 Compliance to RoHS Directive .....12
  - 8.3 Compliance to WEEE Directive .....12
- 9 Appendix .....13**
  - 9.1 Service .....13
  - 9.2 Accesories.....13
    - 9.2.3 Torque Values .....13
  - Contact.....14

## 1. Introduction

This section provides a brief overview of HEITEC Electronic and describes the following:

2. HEITEC AG Business Unit Electronic
3. Applicability
4. Intended application

### 1.1 HEITEC Business Unit Electronic

HEITEC's comprehensive portfolio of standard products and customized solutions provides you with professional enclosure technology – we 'package' your electronics to suit your applications, every time. We are constantly expanding this broad spectrum of chassis components, subracks, instrument cases and system enclosures as well as system platforms. We also offer individual adaptations to these products, in addition to special, customer-specific developments.

Selecting the right enclosure technology is the basis for an efficient end product. Our skills are based on many years of experience covering everything from mechanical design to ensure electromagnetic compatibility and effective heat dissipation concepts for highly complex systems. If you prefer to take responsibility for most of the system integration process yourself, we can supply individual components, pre-assembled components or system enclosures to suit your requirements. If you prefer pre-integrated or fully integrated solutions, incorporating your own hardware and software as required, we can provide a complete service through to a customized system solution.

### 1.2 Applicability

This user manual is applicable to the following products:

Item No.	Description
9927623	HeiCool LITE 24 V DC 1 U
9927627	HeiCool LITE 230 V AC 1 U




Table 1: Applicability

### 1.3 Intended Application

The HeiCool LITE fan unit is intended as a low-cost cooling solution for different use cases within the 19-inch standard. Its rugged design allows it to be used for industrial or server cabinets or many other environments, where a 19-inch cooling solution is required.


The HeiCool LITE shall be used only for dissipating air in assembled 19-inch cabinets. It's not allowed to use it for other media like fluids or polluted air.

## 2 Symbols used in this document


	<p><b>Hazardous voltage!</b></p> <p><i>This is the symbol for hazardous electrical voltages. Be aware of the danger of electrical voltages and the safety precautions to avoid accidents. Ensure to know all possible dangerous voltages before starting the work.</i></p>
	<p><b>Caution!</b></p> <p><i>This WARNING icon cautions you against an action or treatment that could threaten the responsiveness of the equipment or the integrity of your current work. To reduce the risk of being injured and to avoid damages, follow all steps as described.</i></p>
 Note	<p><b>Note</b></p> <p><i>The Note icon notifies you of the information that makes a procedure easier or clarifies an earlier description.</i></p>

## 3 Safety


### 3.1 General safety precautions

	<p><b>Warning!</b> <i>Voltages over 60 V AC are present within the HeiCool LITE 230V. The Fan tray is NOT intended to be opened or accessed!</i></p>
---	--

- Service staff must know the necessary electrical safety, wiring and connection practices for installing this equipment.
- Install this equipment only in compliance with local and national electrical codes.

	<p><b>Caution!</b> <i>The HeiCool LITE 230 V shall be powered with an AC power cable. The voltage and current rating of the AC power cable should be greater than the ratings marked on the product's electrical ratings label. Please see chapter 9.2.1 for a suitable AC power cable.</i></p>
---	---


### 3.2 Grounding

	<p><b>Caution!</b> <i>The HeiCool LITE 230 V is designed in accordance with protection class 1! It must therefore be operated with protective earth/GND connection. Use only a three conductor AC power cable with a protective earth conductor that meets the IEC safety standards!</i></p>
---	--

## 4 HeiCool LITE Components

The HeiCool LITE 1 HE fan tray is designed and manufactured by HEITEC as an additional and cost saving cooling solution for 19-inch subracks.

As a standard definition the fans blow air from bottom to top.

 Note	Refer to Table 2 and Figure 1 for the location and description of the components
---	--

Position	Description
10	Fans ( <b>Blowing direction from bottom to top</b> )
20	Fuse
30	Connection 24V DC
40	On/off switch

Table 2: HeiCool LITE Components

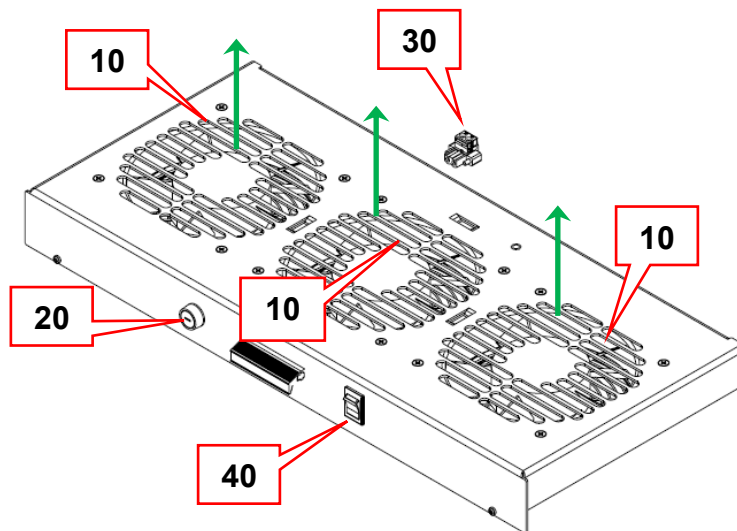


Figure 1: HeiCool LITE Components

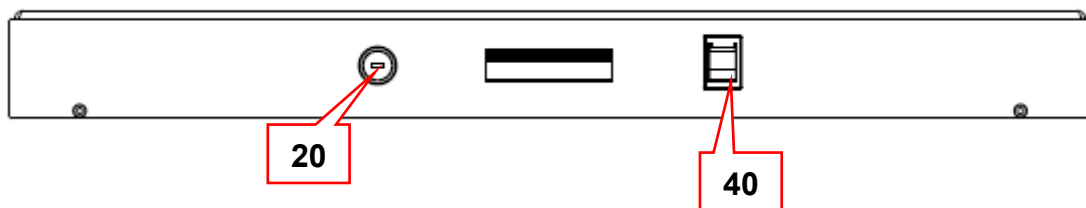


Figure 1: HeiCool LITE front view

## 5 Installation

### 5.1 Inspection of the HeiCool LITE

During the course of handling, shipping, and assembly, shrouds, mounting screws, fans and other items can become damaged and/or loose.



**Warning!**

*Before mounting the fan unit, perform a thorough inspection to ensure the unit and its components are not damaged or loose*

### 5.2 Mounting of the HeiCool LITE

It's recommended to have an easily accessible mains outlet near the fan tray.

For insertion into a 19-inch subrack additional guide rails are needed. The fan tray has to be slid onto the guide rails. The necessary rails with a length of 160 mm are included in the delivery scope. In addition, horizontal rails are required and must be integrated into the 4 U (3+1) subrack configuration

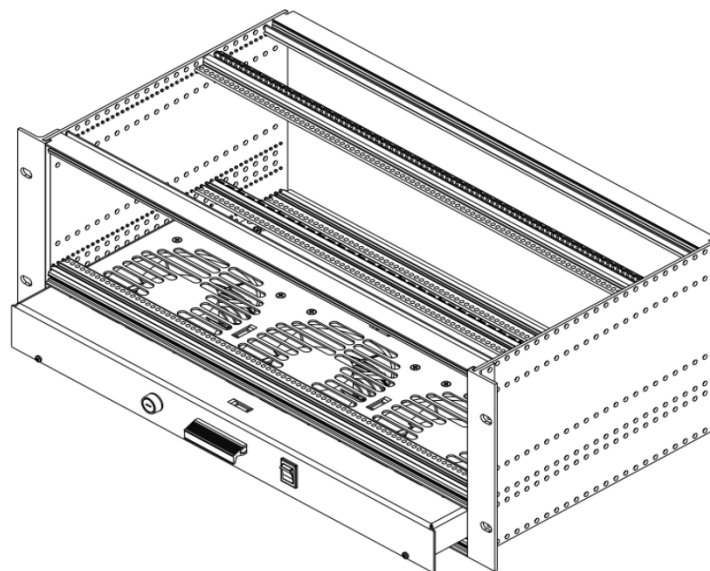


Figure 3: HeiCool Lite inserted within a 4 (3+1) U subrack



Figure 4: Side- and front view of the subrack



**Warning!**


*To ensure proper airflow, make sure that at least 1 U of clearance is maintained below the HeiCool LITE.*


### 5.3 Powering of the HeiCool LITE


Before powering the HeiCool LITE assure that the first inspection from chapter 5.1 is performed properly.

#### **Powering the HeiCool LITE 230V**

1. Connect the AC Inlet via a suitable power cable (see chapter 9.2.1) to the 230 V AC feed.
2. The fan unit can now be switched on manually using the switch.

 Note	<p><i>If the fans are not operating, check that the mains cable is properly inserted, and that the mains AC feed is on.</i></p>
---	---

	<p><b>Warning!</b> <i>If the fans are not operating, check the fuse.</i> <b>Before checking the fuse, the power cable (attached to the mains inlet) has to be removed!</b></p>
---	--

	<p><b>External fuse!</b> <i>It's recommended to have an additional fuse for the whole installation (e.g.: server rack). If not defined by the installation, an automatic circuit breaker with 16 A and characteristic "C" shall be used.</i></p>
--	--

#### **Powering the HeiCool LITE 24 V**

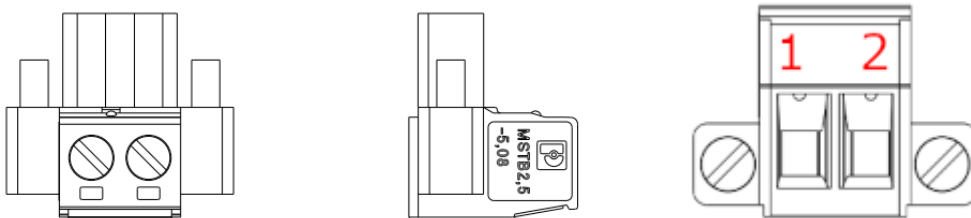


Figure 5: Connection plug 24 V


- 1) Plus-Connection, 24 V DC-voltage, red cable
- 2) Minus-Connection, ground contact, black cable

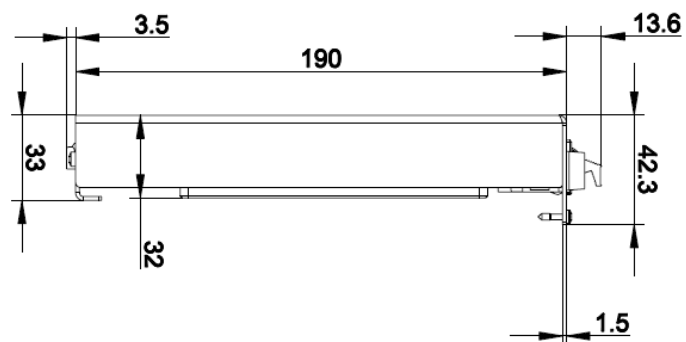
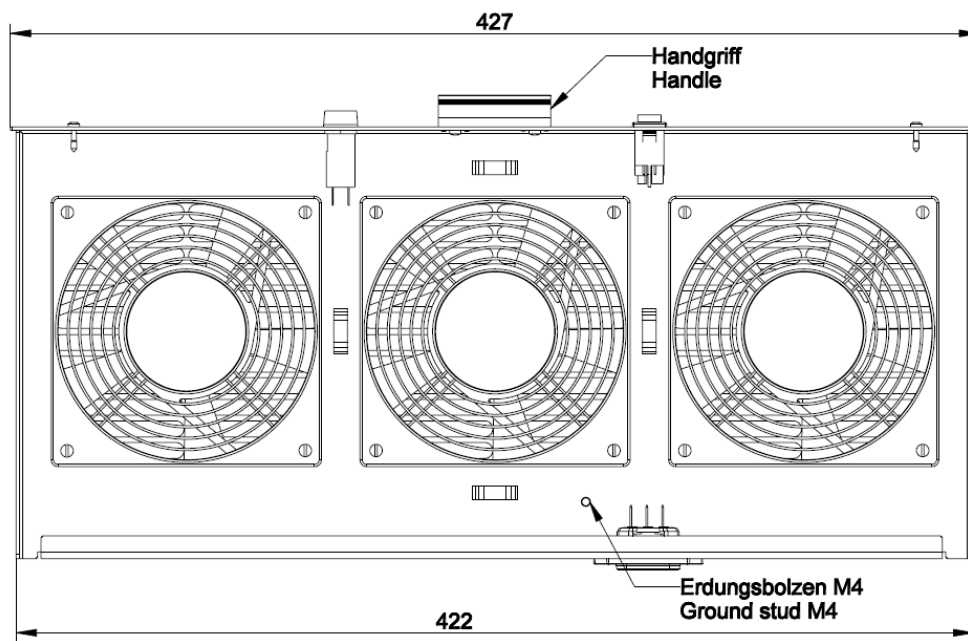
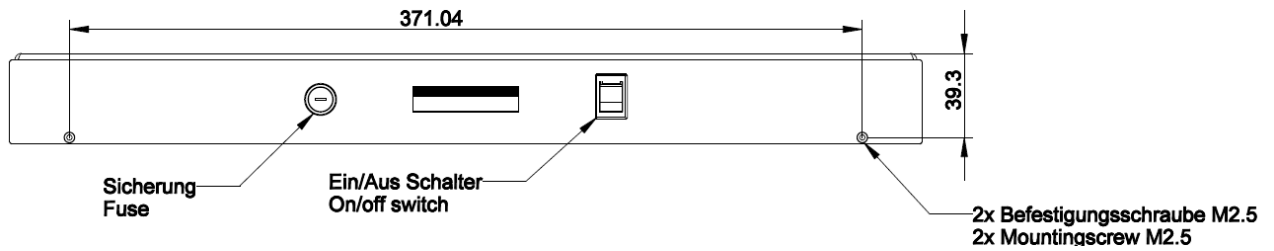
## 6 Technical Data

<b>Dimensions</b>	<b>24 V DC</b>	<b>230 V AC</b>
Height	1 U	1 U
Width	84 HP	84 HP
Depth	190 mm	190 mm
Weight	1,1 kg	1,5 kg
<b>Power input</b>		
Input voltage	10 – 27.6 VDC	185-245 VAC
Frequency	-	50 Hz
Power consumption	15 W	54 W
Fuse	5 x 20 mm; 250 VAC; 2A;	5 x 20 mm; 250 VAC; 2A;
<b>Fan specification (3x included)</b>		
Manufacturer	SUNON	SUNON
Model	EEC0252B1-000U-A99	DP201AT
Speed (rpm) per fan	3,100 +/- 10%	2,500 +/- 10%
Operating temperature	-10 to +70° C	-10 to +70° C
Air flow per fan	184 m³/h	112.1 m³/h
Sound pressure level	45 dB	45 dB
Service life L10 bei 40 °C	70,000 h	70,000 h
Impeller material	Thermoplastic PBT	Thermoplastic PBT
Housing material	Thermoplastic PBT	Die-cast aluminium
<b>Environmental conditions</b>		
Operating temperature	0°C – 70°C	0°C – 70°C
Storage temperature	-40°C to +70°C	-40°C to +70°C
Admissible humidity	Max. 65%	Max. 65%
IP protection	IP20	IP20
<b>EMC, fulfils requirements for:</b>		
EMC	EN 61000-6-3	EN 61000-6-3
Immunity	EN 61000-6-2	EN 61000-6-2
Harmonic current emissions	EN 61000-3-2	EN 61000-3-2
Voltage changes, fluctuations	EN 61000-3-3	EN 61000-3-3
<b>Safety</b>		
Tested according to	EN 62368-1 EN 60950 EN IEC 61000-6-3:2021	EN 62368-1 EN 60950 EN IEC 61000-6-3:2021

Table 1: Technical Data

## 7 Dimensions/Drawings

 Note	Refer to figure 6, 7 and 8 for the dimensions of the HeiCool LITE fan unit.
---	---



## 8 Declarations

### 8.1 Declaration of Conformity

This HEITEC product is developed and manufactured according to DIN EN 60950-1 and fulfills the requirements in accordance with EMC Directive 2014/30/EU and Low-voltage Directive 2014/35/EU.

It possesses the CE marking in accordance with DIN EN 60950-1, DIN EN 50155:2008-03, DIN EN 61373:2011.04 category 1b, DIN EN 61000-6-3 and DIN EN 61000-6-2.

Before delivery a high-voltage, protective earth and functional test is performed on each HeiCool LITE fan tray.

### 8.2 Compliance to RoHS Directive

Directive 2011/65/EU of the European Commission on the "Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment" (RoHS) predicts that all electrical and electronic equipment being put on the European market after June 8th, 2011 must contain lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and cadmium in maximum concentration values of 0.1% respective 0.01% by weight in homogenous materials only.

As these hazardous substances are currently used with semiconductors, plastics (i.e. semiconductor packages, connectors) and soldering tin any hardware product is affected by the RoHS directive if it does not belong to one of the groups of products exempted from the RoHS directive.

Although many of hardware products of HEITEC are exempted from the RoHS directive it is a declared policy of HEITEC to provide all products fully compliant to the RoHS directive as soon as possible. For this purpose, since January 31st, 2005 HEITEC is requesting RoHS compliant deliveries from its suppliers. Special attention and care has been paid to the production cycle, so that wherever and whenever possible RoHS components are used with HEITEC hardware products already.

### 8.3 Compliance to WEEE Directive

The Electrical and Electronic Equipment Act ("ElektroG") transposes the requirements of the WEEE Directive into national law. It stipulates that any manufacturer of electrical and electronic equipment placed on the European market must contribute to the reuse, recycling, and other forms of recovery of such waste in order to reduce disposal. Furthermore, this directive refers to Directive 2011/65/EU of the European Commission on the "Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment" (RoHS).

Having its main focus on private people and households using such electrical and electronic equipment the directive also affects business-to-business relationships. The directive is quite restrictive on how such waste of private people and households has to be handled by the supplier/manufacturer, however, it allows greater flexibility in business-to-business relationships. This pays tribute to the fact that with industrial use electrical and electronic products are commonly integrated into larger and more complex environments or systems that cannot easily be split up again when it comes to their disposal at the end of their life cycles.

As HEITEC products are solely sold to industrial customers, by special arrangement at time of purchase the customer agreed to take responsibility for a WEEE compliant disposal of the used HEITEC product. Moreover, all HEITEC products are marked according to the directive with a crossed-out bin to indicate that these products within the European Community must not be disposed with regular waste.

## 9 Appendix

### 9.1 Service

If you notice malfunctions or failures within the warranty period, we recommend returning the HeiCool LITE. To do so, please contact your sales representative or our order management via [electronics-order@heitec.de](mailto:electronics-order@heitec.de) to start the return process.

### 9.2 Accessories


#### 9.2.1 Power Cable

A suitable power cable for the HeiCool LITE 230 V model is available as a HEITEC standard product. It is not included in the delivery scope and must be ordered separately.

Item No.	Voltage	Country Version	Lenght	Remark
9916524	230 VAC	GER/FRA/BEL	1,8 m	Standard IEC cable

Table 2: power cable

For other countries' specific power cables please contact your sales representative.

 Note	<i>There is no power cable provided for the 24 V version. The power must be supplied via a connection to a power supply unit inside the control cabinet. <b>Please have the wiring carried out by trained personnel only!</b></i>
--	---

#### 9.2.2 Replacement fuse

To protect the fan tray, the following fuse must be used:

Item No.	Description
9918373	5 x 20 mm; 250 VAC; 2 A; slow

Table 5: Replacement fuse

Any fuse can be used for replacement, if it has the same specifications as the HEITEC fuse listed in Table 5. **Before replacing the fuse see chapter 5.3 for important notes!**

#### 9.2.3 Torque Values

Table 6 shows the recommended torque values for fasteners used on the HeiCool LITE fan tray.

Screw	Torque
M2.5	0,3 Nm

Table 6: Recommended Torque Values

## Contact

HEITEC AG

Dr.-Otto-Leich-Str. 16

90542 Eckental-Eschenau, Germany

Tel.: + 49 (0) 9126 2934 – 0

Fax: + 49 (0) 9126 2934 – 199

[www.heitec.de](http://www.heitec.de)