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TERMINAL BATTERY USER MANUAL FOR CIRCULAR DUCTING TYPE 6055

PLEASE READ CAREFULLY AND FULLY THIS MANUAL BEFORE INSTALLING THE UNIT. THIS MANUAL IS AN INTEGRAL PART OF THE PRODUCT AND SHOULD ACCOMPANY IT UNTIL ITS POSSIBLE DISASSEMBLY

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CONTENTS

1. APPLICATION

Heating of the air circulating through a circular duct in industrial processes or for air conditioning:

- Duct outlet temperature: Approximately 40°C
- Maximum effective duty pressure: 100 mm head,
- Minimum velocity: 2 m/s

2. TECHNICAL CHARACTERISTICS

Refer to our commercial publication entitled "Standardized industrial batteries of the 6055 type" and the commercial document or the specific commercial drawing for special production runs.

3. COMPOSITION

These batteries, made of electrozinc-plated steel sheet (or stainless steel as an option), include:

- Bare shielded resistors Ø 10.2 mm of austenitic stainless steel (formed into layers),
- An IP 30 , with its stuffing boxes,
- A temperature safety device consisting of a bimetallic strip limiter with automatic reset for safety of the air temperature, preset to 90°C (or as an option, a temperature safety device consisting of a bimetallic strip with manual reset for air temperature safety, preset to 120°C, or a combination of the two aforementioned safety devices).

4. PRECAUTIONS ON USE

Check that:

- That the size of the battery to be installed corresponds to the size of the duct which will be accommodating it.
- The power supply voltage corresponds to the value indicated on the nameplate.
- The connections of the shielded components are still tight after transport and handling.
- The shielded components are positioned at a distance from the fan at least equal to its diameter.
- The effective duty pressure is definitely less than 100 mm head.

IMPORTANT:

- In order not to overheat the terminal box, whenever possible, it should be placed at the bottom for assembly in a horizontal duct.
- The cover of the terminal box may only be opened by authorized personnel, with no electric power supply present.

5. ASSEMBLY AND CONNECTION

5.1. INSTALLATION:

- It is essential to comply with the direction of airflow when indicated.

5.2. ELECTRICAL CONNECTION:

Make connection according to the diagram attached inside the terminal box:

- of the installation ground screw.
- of the temperature safety device. If it features automatic reset, the control device must cut off the electric supply irreversibly if a fault occurs.
- the power circuit:
  - Normally, the battery is supplied wired up. The connection of each stage is made directly to the identified connection areas.
  - When the battery is supplied UNCOUPLED (for referenced stock batteries only), the user can carry out coulping according to needs, using all or only part of the shielded components. In this case, the coupling strips are supplied by Vulcanic.

After coupling, check that the resistance between each stage is correct.

Obtain the values indicated in the table below in which P is the stage power in kW:

	LOAD VOLTAGE			
	230 SINGLE	400 SINGLE	230 THREE	400 THREE
Resitance to be measured (in ohms)	52.9 / P	158.7 / P	105.8 / P	317.4 / P

6. COMMISSIONING PROCEDURE

6.1. COMMISSIONING

CAUTION:

IN NO CASE shall the battery be energized without a flow of air.

- Before commissioning: make sure that the minimum flow of air is provided,
- Turn on the battery. Immediately check that the in-line current of each stage corresponds to specification.
- Adjust the regulating devices to the nominal air outlet temperature value.

NOTE: After operation at nominal flow and nominal output temperature, after the thermal balance has been reached, ensure that a decrease of the flow rate to below the specified minimum causes heating to stop (therefore switching off the battery).

6.2. STOPPAGE:

It is advisable to shut down the installation while continuing to provide a flow of air for a few minutes after the energizing the battery (to effectuate any calories that have accumulated in the heating parts).

7. MAINTENANCE

- After 50 hours of operation:

  Check that all the connections and the shielded component attaching nuts are tight. The maximum torque load on the terminals of the heating elements is: 2.5 mN.

- Every six months:

  Perform the same operation as in the previous paragraph.

- Every year:

  Check that the heating elements are not fouled; clean them if necessary.

CAUTION:

For disassembly for cleaning or repair, after reassembly, comply with § 4, 5 and 6.

RECOMMENDATIONS: It is advisable that when the temperature safety device trips, in addition to the fact that it must irreversibly turn off the energizing of the device, for it to work on an alarm circuit with manual locking and resetting (with resetting taking place only after the installation has been checked)
For manual resetting: Turn off the power supply before pressing the reset pushbutton.

8. GUARANTEE

Our warranty is compliant with the Interunion agreements of the Electrical Construction Industry and the general sales conditions.

Any damage resulting from:

- Use exceeding 10% of the specified nominal voltage,
- wear caused by a lack of servicing, impact, clumsy or inexperienced users,
- failure to comply with this manual, the state-of-the-art rules and the legislation,
- corrosion or fouling phenomena that are not binding on our responsibility.