

# INSTALLATION AND OPERATING INSTRUCTIONS

## THERMODOM FLOOR HEATING MATS

(Type EFF.....)

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### 1) GENERAL, WARNINGS

"carlo" Thermodom floor heating mats are electric heater covers for heating small floor areas. Floor heating elements are not designed to be used in animal housing and therefore, are not permissible to be used as such! They are fixed heaters for dry rooms, however they are for heating a small area rather than a room. Small heating elements are electric heating appliances operating with a voltage of 230 V. Examine the floor heating mats for evidence of damage or wear before use. Any form of mechanical damage, e.g. embedded foreign objects, cuts, etc. can expose live parts.



The floor heating elements must not be used if the top of the mat is worn by more than 0.5 mm or has cuts, tears, breaks or damage to the connecting cable. Defective connecting cables must only be replaced by the factory.

**Attention:** The "carlo" Thermodom floor heating mats do not have an overheat limit device. Therefore, they must not be covered with material as this can cause a build-up of heat (heavy rugs impervious to heat, furniture, etc.). Ignoring this can lead to the risk of fire! Unsupervised use is not permitted. The "carlo" Thermodom floor heating mats must not be laid overlapping and must not be used close to a bath, shower or swimming pool. Do not operate unsupervised! Do not operate outdoors!

Keep children under the age of 3 away from the appliances or ensure they are supervised at all times. Children between the ages of 3 and 8 are only allowed to switch the appliance on and off when supervised or instructed in the safe usage of the appliance and have understood the resulting risks, assuming that the appliance is positioned or installed in its normal position of use. Children between the ages of 3 and 8 are not allowed to plug in the appliance, regulate it, clean it and/or perform user maintenance.

**Caution:** Do not pierce or insert sharp objects! Any form of mechanical damage, e.g. embedded foreign objects, cuts, etc. can expose live parts. DO NOT BEND.

### 2) INSTALLATION

The larger "carlo" Thermodom floor heating mats are delivered rolled together. To prevent damage, the floor heating elements must only be unrolled when warm (at least 15 °C).

**Attention:** The floor heating elements must not be operated when rolled together. The overlapping can result in a higher surface output and therefore the risk of fire due to heat build-up.

"carlo" Thermodom floor heating mats must only be laid out on flat surfaces able to carry their weight. If this is not available, create a suitable surface using appropriate levelling compounds. Wooden floors must also be flat surfaces with no protruding nails or screw heads! No work must be performed on the floor heating elements (e.g. drilling, cutting, etc.) as this can lead to exposure of the live parts. Consider: The heater pads operate with a voltage of 230 V!

The "carlo" Thermodom floor heating mats must not be installed directly beneath a wall socket.

"carlo" Thermodom floor heating mats are fixed heating elements. Loosely lying the mats on the floor is not permitted - unless the weight of the "carlo" Thermodom floor heating mat exceeds 18 kg (roughly 3.5 m<sup>2</sup>).

The floor heating elements can be fixed with profile rails.

If desired, attachment holes for installation using screws can be provided by the factory.



**Attention:** It must be ensured that the floor heating elements are only operated when the heat can dissipate sufficiently. All overlapping, e.g. where there are several floor heating elements, or folded edges of the floor heating mat can lead to overheating - risk of fire. Do not place over a step or on edges.

### 3) ELECTRICAL CONNECTION

The electrical connection must only be carried out by a qualified electrician. The valid regulations for the installation of high-voltage systems with a nominal voltage up to 1000 V (EN Parts 1-4) must be adhered to during assembly and installation. An all-pole isolator with at least a 3 mm contact opening must be installed for the fixed connections to the mains (e.g. automatic circuit breaker, earth leakage circuit breaker). Before installation, it must be checked that the mains voltage conforms to the given working voltage on the specification plate.

"carlo" Thermodom floor heating mats have a cable H05VV F 2 x 0.75 mm<sup>2</sup> and either, depending on the heating capacity, a standardised European plug or a two-pole plug, with open ends for fixed connections. An all-pole isolator with at least a 3 mm contact opening must be installed for fixed connections (e.g. earth leakage circuit breaker or safety fuse). The floor heating elements are insulated (protection class II). A correctly (according to the regulations) installed 230 V socket is sufficient for the floor heating elements with plugs.

If the supply cable is damaged, this must be replaced in the factory by the manufacturer to prevent risks.

Technical data:           **EFF.....**  
Nominal voltage:       AC 230 V  
Nominal power: 120 W - 1300 W  
Protection class: II (insulated)  
Protection class: IP 41 (splash-proof)

#### 4) FIRST COMMISSIONING

Before commissioning for the first time, check that the mains voltage conforms to the given working voltage on the specification plate. With new heating pads, there may be a light odour to begin with but this will subside after a short time! Examine the floor heating mats for evidence of damage before each use.

Damaged floor heating elements must NOT be used.

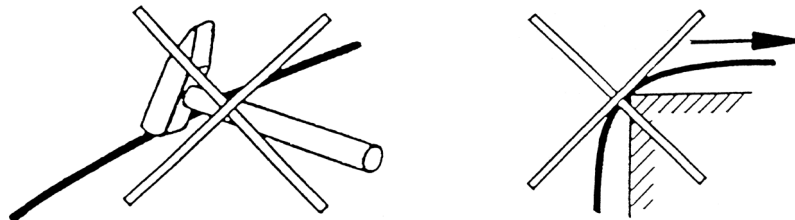
#### 5) HEATING, SAFETY, MAINTENANCE

**Attention:** The "carlo" Thermodom floor heating mats do not have a temperature regulator. The "carlo" Thermodom floor heating mats must not be covered to prevent them from overheating. Covering with heavy rugs impervious to heat or furniture, or overlapping the "carlo" Thermodom floor heating mats, even if only partly, can lead to overheating - risk of fire!

The "carlo" Thermodom floor heating mats must not be operated when rolled together. The overlapping can result in a higher surface output and therefore the risk of fire due to heat build-up.

The power output of the floor heating elements is dimensioned so that the surface temperature of the heating element rises by approx. 20 °C. An external temperature regulator or heating time limiter is permitted.

**Caution:** Do not pierce or insert sharp objects! Any form of mechanical damage, e.g. embedded foreign objects, cuts, etc. can expose live parts. DO NOT BEND.



The "carlo" Thermodom floor heating mats conform to the relevant safety regulations for electrical appliances. Check the correct functioning at regular intervals (e.g. in the course of the weekly cleaning) (ÖVE-E5 Part 1/1989 and ÖVE-EN50110). The duty to perform the reoccurring test of the electrical equipment of the heating facility in accordance with § 12.1.6 is fulfilled when the appliance is tested at least once per year using cleaning and testing measures, at best before the start of the heating period.

Keep children under the age of 3 away from the appliances or ensure they are supervised at all times.

Children between the ages of 3 and 8 are only allowed to switch the appliance on and off when supervised or instructed in the safe usage of the appliance and have understood the resulting risks, assuming that the appliance is positioned or installed in its normal position for use. Children between the ages of 3 and 8 are not allowed to plug in the appliance, regulate it, clean it and/or **perform user maintenance**.

The "carlo" Thermodom floor heating mats do not require maintenance. However, care must be taken to ensure that damaged floor heating elements are not used. Therefore, the floor heating elements must be checked for damage and embedded foreign objects at regular intervals before use. To do this, isolate the "carlo" Thermodom floor heating mats from the power supply (unplug from the socket if possible) and prevent them from being switched on again.

Use must be stopped immediately if there are any signs of wear or damage, e.g. cuts, breaks, broken connection strips, defective connecting cables, etc. The floor heating element can be returned to the manufacturer, however, who will decide whether a repair is possible. Repairs must only be carried out by the manufacturer

#### Cleaning:

The surface of the floor heating elements is made from an elastic vinyl flooring in accordance with EN 649, approved for industrial areas (Class 4). Clean the surface by wiping with water or a product designed for use on vinyl flooring. Do not use solvents or abrasive additives!

## **6) SAFETY, DESIGNATION, CE CONFORMITY**

The "carlo" Thermodom floor heating mats conform to the relevant safety regulations for electrical appliances for home use and similar purposes.

#### **Checked and certified in accordance with:**

ÖVE/ÖNORM EN 60335-1:2012-11-01  
OVE EN 60335- 1/A11:2016-07-01  
ÖVE/ÖNORM EN 60335-2-30:2013-03-01  
ÖVE/ÖNORM EN 62233:2009-01-01

ÖVE/ÖNORM EN 55014-1:2012-06-01  
ÖVE/ÖNORM EN 55014-2:2016-02-01

ÖVE/ÖNORM EN 61000-3-2:2015-04-01  
ÖVE/ÖNORM EN 61000-3-3:2014-04-01



Zertifikat Nr.: 55-035-06

This certificate forms the basis for the EC Declaration of Conformity and CE marking by the manufacturer or his authorised person, and confirms conformity with the standards named in the **EC Low Voltage Directive 2014/35/EU**.

These mounting and operating instructions must be stored carefully and passed on with the "carlo" Thermodom floor heating mats in the event of a change of user or owner.